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Water Resources Data for Idaho

Volume 2. Upper Columbia River Basin and Snake River Basin below King Hill

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT ID-78-2

WATER YEAR 1978

Prepared in cooperation with the State of Idaho
and with other agencies

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SPRINGFIELD, VA. 22161

CALENDAR FOR WATER YEAR 1978

1977

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1978

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Water resources data for the 1978 water year for Idaho consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground water. This report in two volumes contains discharge records for 192 gaging stations; stage only records for 2 gaging stations; stage for 6 lakes; contents for 24 lakes and reservoirs; water-quality for 103 gaging stations, 48 partial-record stations, and 179 wells; and water levels for 429 observation wells. Also included are data for 57 crest-stage partial-record stations and 191 low-flow partial-record stations. Additional water data were collected at various sites, not involved in the systematic data collection program, and are published as miscellaneous measurements. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in Idaho.

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UNITED STATES DEPARTMENT OF THE INTERIOR

CECIL D. ANDRUS, Secretary

GEOLOGICAL SURVEY

H. William Menard, Director

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Boise, Idaho 83724

1979

Preface

This report was prepared by personnel of the Idaho district of the Water Resources Division of the U.S. Geological Survey under the supervision of E. F. Hubbard, District Chief, and W. H. Robinson, Regional Hydrologist, Western Region. It was done in cooperation with the State of Idaho and with other agencies.

This report is one of a series issued by state. General direction for the series is by J. S. Cragwall, Jr., Chief Hydrologist, U.S. Geological Survey, and Philip Cohen, Assistant Chief Hydrologist for Scientific Publications and Data Management.

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GAGING STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED

LETTER AFTER STATION NAME DESIGNATES TYPE OF DATA:
(D) DISCHARGE, (C) CHEMICAL, (B) BIOLOGICAL, (M) MICROBIOLOGICAL,
(T) WATER TEMPERATURE, (E) ELEVATION OR CONTENTS, (S) SEDIMENT

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WATER RESOURCES DATA FOR IDAHO, 1978

INTRODUCTION

Water resources data for the 1978 water year for Idaho consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground water. This report in two volumes contains discharge records for 192 gaging stations; stage only records for 2 gaging stations; stage for 6 lakes; contents for 24 lakes and reservoirs; water-quality for 103 gaging stations, 48 partial-record stations, and 179 wells; and water levels for 429 observation wells. Also included are data for 57 crest-stage partial-record stations and 191 low-flow partial-record stations. Additional water data were collected at various sites, not involved in the systematic data collection program, and are published as miscellaneous measurements. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in Idaho.

Records of discharge or stage of streams, and contents or stage of lakes and reservoirs were first published in a series of U.S. Geological Survey water-supply papers entitled, "Surface Water Supply of the United States." Through September 30, 1960, these water-supply papers were in an annual series and then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled, "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1974 in a series of water-supply papers entitled, "Ground-Water Levels in the United States." Water-supply papers may be consulted in the libraries of the principal cities in the United States or may be purchased from Branch of Distribution, U.S. Geological Survey, 1200 South Eads Street, Arlington, VA 22202.

For water years 1961 through 1974, streamflow data were released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1974 were similarly released either in separate reports or in conjunction with streamflow records. Beginning with the 1975 water year, water data for streamflow, water quality, and ground water are published as an official Survey report on a State-boundary basis. These official Survey reports carry an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this report is identified as "U.S. Geological Survey Water-Data Report ID-78-2." Water-Data reports are for sale by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

COOPERATION

The U.S. Geological Survey and organizations of the State of Idaho have had cooperative agreements for the systematic collection of streamflow records since 1909, for ground-water levels since 1946, and for water-quality records since 1965. Organizations that assisted in collecting data through cooperative agreement with the Survey are:

Idaho Department of Water Resources, C. S. Allred, director.

Idaho Department of Transportation, Division of Highways, E. D. Tisdale, P.E., State highway administrator.

Bear River Commission, W. N. Jibson, chairman.

Assistance in the form of funds or services was given by the Bureau of Reclamation, U.S. Department of the Interior, in collecting records for 24 gaging stations; Corps of Engineers, U.S. Army, in collecting records for 22 gaging stations; U.S. Department of State in collecting records for 11 gaging stations and one water-quality station; Environmental Protection Agency in collecting records for 11 water-quality stations; Bonneville Power Administration, U.S. Department of Interior, in collecting records for four gaging stations; Bureau of Land Management, U.S. Department of the Interior, in collecting records for two gaging stations; U.S. Department of Agriculture, Soil Conservation Service, in collecting records for three gaging stations, and Forest Service, in collecting records for one gaging station; and by the Bureau of Indian Affairs, U.S. Department of the Interior, in collecting records for one gaging station published in this report.

The following organizations aided in collecting records:

Water Districts 01, 31, 33, 34, 37, 37N, and 65K; King Hill Irrigation District; Oakley Canal Co.; Idaho Power Co.; Washington Water Power Co.; Utah Power & Light Co.; Salmon River Canal Co.; and Blaine County Canal Co.

Organizations that supplied data are acknowledged in station descriptions.

ACKNOWLEDGMENTS

Idaho district personnel who contributed significantly to the collection and preparation of the data in this report were: H. A. Ray, chief, hydrologic data section, assisted by R. W. Harper, C. M. Bennett, S. A. Gutenberger, J. R. Spofford, H. G. Sisco, W. H. Low, R. W. Luscombe, E. L. Young, S. C. Cordes, J. K. Crockett, and R. L. Murphy.

HYDROLOGIC CONDITIONS

The mean annual streamflow for the 1978 water year was within about 20 percent of the median, most streams being above. Discharge in Boise, Weiser, and Salmon Rivers and some other rivers was in the excessive range.

Streamflow was deficient in many streams as the water year began, reflecting the record low flows during the 1977 drought. Precipitation several inches above average and moderate temperatures in December erased the deficiencies, and most streams yielded excessive flows one or more months during winter. Snow accumulation was near average on April 1. Cool temperatures delayed the snowmelt. Streamflow in the median range occurred in most streams during the spring and reached the excessive range one or more months during the summer.

On October 1, 1977, storage for irrigation use in selected major reservoirs was depleted to 20 percent of their capacity of 1.9 million acre-feet, and storage for power was withdrawn to about 75 percent of their capacity of 7.3 million acre-feet. On September 30, 1978, impounded storage for irrigation had increased to 66 percent of capacity, and for power to 82 percent, providing good carryover supplies for future use.

Monthly and annual mean discharge is compared with median at two representative gaging stations in figure 4.

Changes in ground-water levels from spring 1977 to spring 1978 for selected wells are shown in figure 1. These wells are representative of the long-term water-level trends for different areas in the State.

The lower symbol is the well location; the upper number is the water-level change in feet above (+) or below (-) the spring 1977 water level.

Water levels in the Rathdrum Prairie in north Idaho (fig. 18) showed a decline of 1.7-6.7 feet from spring 1977 levels. In north-central Idaho (fig. 19) water levels rose 1.8 feet.

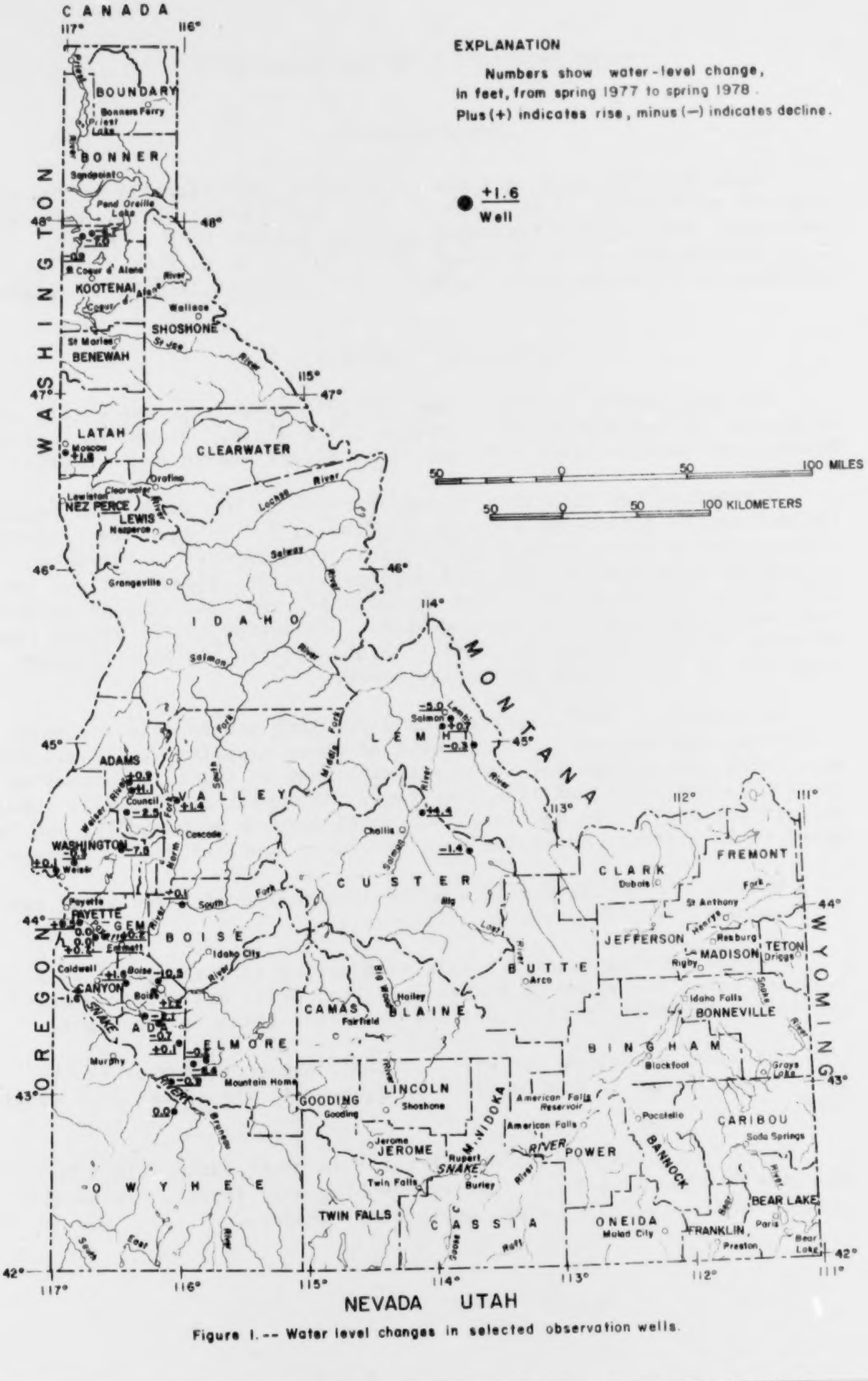

EXPLANATION
Numbers show water-level change, in feet, from spring 1977 to spring 1978. Plus (+) indicates rise, minus (—) indicates decline.
● +1.6 Well
50 0 50 100 MILES
50 0 50 100 KILOMETERS
CANADA
WASHINGTON
OREGON
MONTANA
WYOMING
NEVADA
UTAH
BOUNDARY
BONNER
KOOTENAI
SHOSHONE
BENEWAH
LATAH
CLEARWATER
NEZ PERCE
LEWIS
IDAHO
ADAMS
VALLEY
WASHINGTON
PAYETTE
GEM
BOISE
CANYON
ADA
ELMORE
OWYHEE
CAMAS
BLAINE
LEMHI
CUSTER
BUTTE
CLARK
FREMONT
JEFFERSON
MADISON
TETON
BONNEVILLE
BINGHAM
GOODING
LINCOLN
MINIDOKA
JEROME
TWIN FALLS
CASSIA
POWER
BANNOCK
CARIBOU
ONEIDA
FRANKLIN
BEAR LAKE
117°
116°
115°
114°
113°
112°
111°
48°
47°
46°
45°
44°
43°
42°

Figure 1.-- Water level changes in selected observation wells.

Water levels in the Payette River valley of west-central Idaho (fig. 20) were near normal. Levels in the Weiser River valley generally showed no change; however, near Crane Creek Reservoir, levels were 7 feet lower. Levels in the Salmon River valley of east-central Idaho (fig. 21) rose slightly; and in the Lemhi River valley, water levels declined about 5 feet. Levels in the upper part of the Pahsimeroi valley were 1.4 feet lower and were 4.4 feet higher near the mouth of the valley.

In Boise Valley of southwest Idaho (fig. 22), levels in the shallow aquifer, which is recharged largely from surface-water irrigation, were about 1 foot higher. In areas where ground-water is withdrawn from the deep aquifer for irrigation, levels continued a downward trend and were 0.7-10.5 feet lower. In areas of ground-water development on the Mountain Home Plateau, water levels showed long-term declining trends and were 0.2 foot to as much as 8.4 feet lower than spring 1977 levels. Water levels in the area south of the Snake River (Bruneau-Grandview) showed no change.

DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report are defined below. See also the table for converting English units to International System of units (SI) on the inside back cover.

Acre-foot (ac-ft,AC-FT) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Adenosine triphosphate (ATP) is the primary energy donor in cellular life process. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A measure of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter of the original water sample.

Algae are mostly aquatic single-celled, colonial, or multicelled plants, containing chlorophyll and lacking roots, stems, and leaves.

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer, tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rod-like, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as all the organisms which produce colonies within 24 hours when incubated at 35°C ± 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 ml of sample.

Fecal coliform bacteria are bacteria that are present in the intestine or feces of warmblooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5°C ± 0.2°C on m-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 ml of sample.

Fecal streptococcal bacteria are bacteria found also in the intestine of warmblooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C ± 1.0°C on M-enterrococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 ml of sample.

Bed material is the unconsolidated material of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per litre, necessary for the decomposition of organic matter by microorganisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the weight per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square meter (g/m^2).

Dry mass refers to the weight of residue present after drying in an oven at 60°C for zooplankton and 105°C for periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and ash mass, and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash mass and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

Cfs-day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, or about 646,000 gallons or 2,447 cubic meters.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water, and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common green pigments in plants.

Color unit is produced by one milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of salt water.

Cubic feet per second per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Cubic foot per second (FT^3/s, ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second, and is equivalent to 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Discharge is the volume of water (or more broadly, total fluids) that passes a given point within a given period of time.

Mean discharge is the arithmetic mean of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time.

Dissolved refers to the amount of a substance present in true chemical solution. In practice, however, the term includes all forms of the substance that will pass through a 0.45-micrometer membrane filter, and thus may include some very small (colloidal) suspended particles. Analyses are performed on filtered samples.

Diversity index is a numerical expression of evenness of distribution of aquatic organisms. The formula for diversity index is:

$$\bar{d} = -\sum_{i=1}^{s} \frac{n_i}{n} \log_2 \frac{n_i}{n}$$

Where n_i is the number of individuals per taxon, n is the total number of individuals, and s is the total number of taxa in the sample of the community. Diversity index values range from zero, when all the organisms in the sample are the same, to some positive number, when some or all of the organisms in the sample are different.

Drainage area of a stream at a specific location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the river above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ($CaCO_3$).

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an 8-digit number.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

Methylene blue active substance (MBAS) is a measure of apparent detergents. This determination depends on the formation of a blue color when methylene blue dye reacts with synthetic detergent compounds.

Micrograms per gram (ug/g) is a unit expressing the concentration of a chemical element as the mass (micrograms) of the element sorbed per unit mass (gram) of sediment.

Micrograms per liter (UG/L,ug/L) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (MG/L,mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/l, and is based on the mass of sediment per liter of water-sediment mixture.

Organism is any living entity, such as an insect, phytoplankter, or zooplankter.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meters (m^2), acres, or hectares. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliters (mL) or liters (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Partial-record station is a particular site where limited streamflow and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of suspended sediment or bed material determined either by sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay..........	0.00024 - 0.004	Sedimentation.
Silt..........	.004 - .062	Sedimentation.
Sand..........	.062 - 2.0	Sedimentation or sieve.
Gravel........	2.0 - 64.0	Sieve.

The particle size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis.

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, mass, or volume.

Pesticides are chemical compounds used to control undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Insecticides and herbicides, which control insects and plants respectively, are the two categories reported.

Picocurie (PC,pCi) is one trillionth (1×10^{12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioacitivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton in the plant of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment, and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells/mL of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algal mats or floating "moss" in lakes. Their concentrations are expressed as number of cells/mL of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column, and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

Polychlorinated biphenyls (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Primary production is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms (chiefly green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated by the plants (carbon method).

Milligrams of carbon per area or volume per unit time [mg C/(m^2•time for periphyton and macrophytes and mg C/(m^3•time)] for phytoplankton are units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactive carbon (carbon-14). The carbon-14 method is of greater sensitivity than the oxygen light and dark bottle method, and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [mg O_2/(m^2•time) for periphyton and macrophytes and mg O_2/(m^3•time)] for phytoplankton are the units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

Runoff in inches (IN,in) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Sediment is solid material that originates mostly from disintegrated rocks and is transformed by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Suspended-sediment discharge (tons/day) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight, or by volume, that passes a section in a given time. It is computed by multiplying discharge times mg/L times 0.0027.

Suspended-sediment load is quantity of suspended sediment passing a section in a specified period.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bedload discharge. It is the total quantity of sediment, as measured by dry weight or volume, that passes a section during a given time.

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in micromhos per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and volume of water per unit of time, flowing in a channel.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lives.

Natural substrates refers to any naturally occurring emersed or submersed solid surface, such as a rock or tree, upon which an organism lives.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The use of artificial substrates simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multiplate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection.

Surface area of a lake is that area outlined on the latest USGS topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimetered. All areas shown are those for the stage when the planimetered map was made.

Surficial bed material is that part (0.1 to 0.2 ft) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of the total concentration in a water-sediment mixture. The water-sediment mixture is associated with (or sorbed on) that material retained on a 0.45 micrometer filter.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, *Hexagenia limbata*, is the following:

Kingdom	Animal
Phylum	Arthropoda
Class	Insecta
Order	Ephemeroptera
Family	Ephemeridae
Genus	*Hexagenia*
Species	*Hexagenia limbata*

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the water year.

Tons per acre-foot indicates the dry weight of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration in milligrams per liter by 0.00136.

Tons per day is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour day.

Total load (tons) is the total quantity of any individual constituent, as measured by dry mass or volume, that is dissolved in a specific amount of water (discharge) during a given time. It is computed by multiplying the total discharge, times the mg/L of the constituent, times the factor 0.0027, times the number of days.

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

WRD is used as an abbreviation for "Water Resources Data" in the REVISED RECORDS paragraph to refer to State annual basic-data reports published before 1975.

WSP is used as an abbreviation for "Water-Supply Paper" in references to previously published reports.

DOWNSTREAM ORDER AND STATION NUMBER

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary that enters between two main-stream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary on which a station is situated with respect to the stream to which it is immediately tributary is indicated by an indention in a list of stations in the front of the report. Each indention represents one rank. This downstream order and system of indention show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit number for each station such as 13317000, which appears just to the left of the station name, includes the 2-digit part number "13" plus the 6-digit downstream order number "317000."

NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

The 8-digit downstream order station numbers are not assigned to wells and miscellaneous sites where only random water-quality samples or discharge measurements are taken.

The well and miscellaneous site numbering system of the U.S. Geological Survey is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, the next 7 digits denote degrees, minutes, and seconds of longitude, and the last 2 digits (assigned sequentially) identify the wells or other sites within a 1-second grid. See figure 2 below.

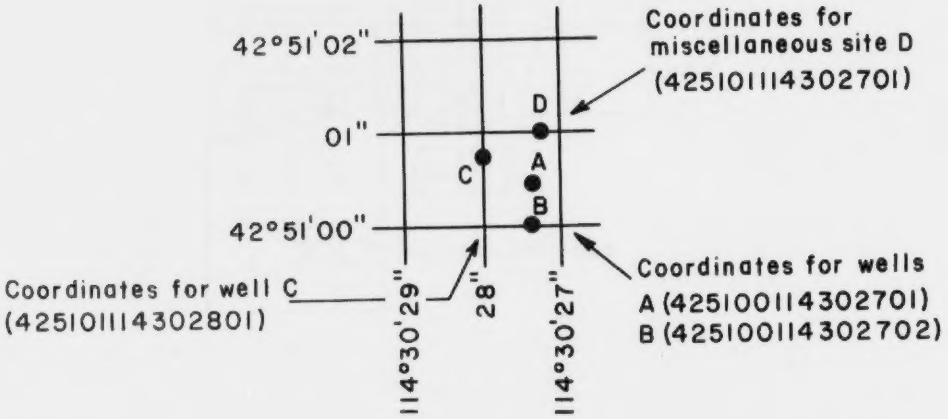
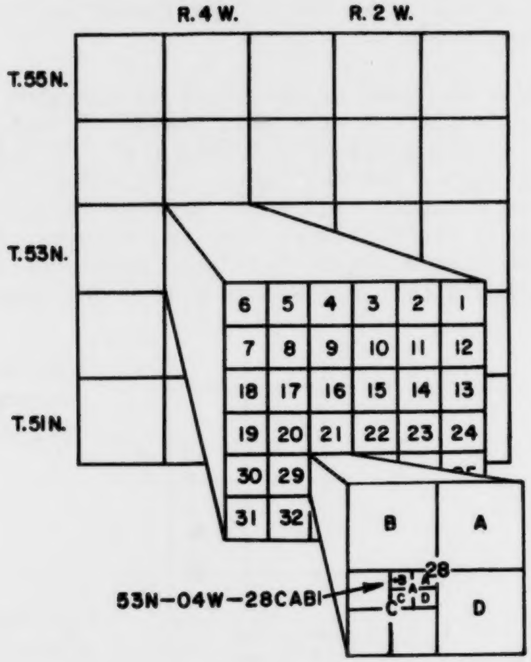

42°51'02"
Coordinates for
miscellaneous site D
(425101114302701)
D
01"
C
A
B
42°51'00"
Coordinates for well C
(425101114302801)
114°30'29"
28"
114°30'27"
Coordinates for wells
A (425100114302701)
B (425100114302702)

Figure 2.--System for numbering wells and miscellaneous sites (latitude and longitude).

Idaho Well-Numbering System

The well-numbering system used by the Geological Survey in Idaho indicates the location of wells within the official rectangular subdivisions of the public lands, with reference to the Boise base line and meridian. The first segment of a well number indicates the township, the seond the range, and the third the section in which the well is situated. The letters following the section number indicate the well location within the section: The first letter denotes the 160-acre (65-hm^2) tract, the second the 40-acre (16-hm^2) tract, the third the 10-acre (4.0-hm^2) tract in which the well occurs. The letters are assigned in a counterclockwise direction, beginning in the northeast quarter (fig. 3). The last numberal is a serial number assigned when the well is inventoried. Thus, well 53N-04W-28CABL is in the NW¼NE¼SW¼ sec. 28, T. 53 N., R. 4 E., and is the first well inventoried in that tract.


R.4 W.
R.2 W.
T.55N.
T.53N.
T.51N.
6
5
4
3
2
1
7
8
9
10
11
12
18
17
16
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14
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19
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22
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24
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29
31
32
B
A
28
C
D
53N-04W-28CAB1

Figure 3.--Diagram showing Idaho well-numbering system.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

National stream-quality accounting network (NASQAN) is a data collection network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated in the network design. Areal configuration of the network is based on river-basin accounting units designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of streamflow and water-quality conditions nationwide on a year-to-year basis and (2) to detect and assess long-term changes in streamflow and stream quality.

Pesticide program is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in streams where potential contamination could result from the application of the commonly used insecticides and herbicides. Operation of the network is a Federal interagency activity.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Tritium network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

Collection and Computation of Data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and contents of lakes and reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from either direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at selected intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey. These methods are described in standard textbooks, in Water-Supply Paper 888, and in U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6.

For stream-gaging stations, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to express discharge greater than measured, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, or computation of flow over dams or weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and the yearly mean discharge are computed from the daily figures. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is computed by the shifting-control method, in which correction factors based on individual discharge measurements and notes by engineers and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

At some stream-gaging stations, the stage-discharge relation is affected by the backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations, the stage-discharge relation is affected by changing stage; at these stations, the rate of change in stage is used as a factor in computing discharge.

At some gaging stations, the stage-discharge relation is affected by ice during the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of the gage-height record and occasional winter discharge measurements. Consideration is given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys, the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some gaging stations, there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute the daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated on the basis of recorded range in stage, prior and subsequent records, discharge measurements, weather records, and comparison with records for other stations in the same or nearby basins. Likewise, daily contents may be estimated on the basis of operator's log, prior and subsequent records, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of daily and monthly figures. For gaging stations on streams or canals, a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs, a monthly summary table of stage and contents or a table showing the daily contents is given. Tables of daily mean gage heights are included for some streamflow stations and for some reservoir stations. Records are published for the water year, which begins on October 1 and ends on September 30.

The description of the gaging station gives the location, drainage area, period of record, notations of revisions of previously published records, type and history of gages, general remarks, average discharge, and extremes of discharge or contents. The location of the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD."

Previously published streamflow records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have be en published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years, only one number is given; for instance, 1965 stands for the water year October 1, 1964, to September 30, 1965. If no daily, monthly, or annual figures of discharge are affected by the revision, the fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given. It should be noted that for all stations for which cubic feet per second per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

The type of gage currently in use, the datum of the present gage above mean sea level, and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." In references to datum of gages, the phrase "mean sea level" denotes "Sea Level Datum of 1929" as used by the Topographic Division of the Geological Survey, unless otherwise qualified.

Information pertaining to the accuracy of the discharge records and to conditions which affect the natural flow of the gaging station is given under "REMARKS." For reservoir stations, information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir is given under "REMARKS."

The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE;" it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. Under "EXTREMES" are given first, the extremes for the period of record, second, information available outside the period of record, and last, those for the current year. Unless otherwise qualified, the maximum discharge (or contents) is the instantaneous maximum corresponding to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur at the same time as the maximum discharge (or contents). it is given separately. Similarly, the minimum is the instantaneous minimum unless otherwise qualified. For some stations, peak discharges are listed with EXTREMES FOR THE CURRENT YEAR; if they are, all independent peaks, including the maximum for the year, above the selected base with the time of occurrence and corresponding gage heights are published in tabular format. The base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330. The minimums for these stations are published in a separate paragraph following the table of peaks.

Skeleton rating tables are published, immediately following EXTREMES, for stream-gaging stations where they serve a useful purpose and the dates of applicability can be easily identified.

The daily table for stream-gaging stations gives the mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also may be expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN") or in acre-feet (line headed "AC-FT"). Figures of cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion, if the drainage area includes large noncontributing areas, or if the average annual rainfall over the drainage basin is usually less than 20 inches. In the yearly summary below the monthly summary, the figures shown are appropriate daily discharges for the calendar and water years.

Footnotes to the table of daily discharge are introduced by the word "NOTE." Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-discharge relation, or of any other unusual condition at the gage are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs.

For most gaging stations on lakes and reservoirs, the data presented comprise a description of the station and a monthly summary table of stage and contents. For some reservoirs, a table showing daily contents or stage is given. A skeleton table of capacity at given stages is published for all reservoirs for which records are published on a daily basis, but is not published for reservoirs for which only monthly data are given.

Data collected at partial-record stations follow the information for continuous record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations.

The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. Occasionally, a series of discharge measurements are made within a short time period to investigate the seepage gains or losses along a reach of a stream or to determine the low-flow characteristics of an area. Such measurements are also given in special tables following the tables of partial-record stations.

Accuracy of Field Data and Computed Results

The accuracy of streamflow data depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements and (2) the accuracy of observations of stage, measurements of discharge, and interpretation of records.

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges is within 5 percent; "good" within 10 percent; and "fair" within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 ft^3/s; to tenths between 1.0 and 10 ft^3/s; to whole numbers between 10 and 1,000 ft^3/s' and to 3 significant figures above 1,000 ft^3/s. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or other factors. For such stations, figures of cubic feet per second per square mile and of runoff in inches are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Other Data Available

Information of a more detailed nature than that published for most of the gaging stations such as observations of water temperatures, discharge measurements, gage-height records, and rating tables is on file in the district office. Also most gaging-station records are available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the district office.

Records of Discharge Collected by Agencies other than the Geological Survey

Records of discharge not published by the Geological Survey were collected in the current water year by other State and Federal agencies. The National Water Data Exchange, Water Resources Division, U.S. Geological Survey, National Center, Reston, VA 22092, maintains an index of such sites. Information on records available at specific sites can be obtained upon request.

EXPLANATION OF WATER-QUALITY RECORDS

Collection and Examination of Data

Surface-water samples for analyses usually are collected at or near gaging stations. The quality-of-water records are given immediately following the discharge records at these stations.

The descriptive heading for water-quality records gives the period of daily record for parameters that are measured on a daily basis (specific conductance, pH, dissolved oxygen, water temperature, sediment discharge, etc.); extremes for the period of daily record; extremes for the current year; and general remarks.

For ground-water records, no descriptive statements are given; however, the well number, depth of well, date of sampling and/or other pertinent data are given in the table containing the chemical analyses of the ground water.

Water Analysis

Most methods for collecting and analyzing water samples are described in the U.S. Geological Survey Techniques of Water-Resources Investigations listed on a following page.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the district office.

Water Temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for surface-water stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross sections.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided day method. For periods when no samples were collected, daily loads of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of the quantities of suspended sediment, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included.

EXPLANATION OF GROUND-WATER LEVEL RECORDS

Collection of the Data

Ground-water level data from the Statewide network of observation wells are published herein. This network is designed so that the fewest number of wells are used to obtain the most significant data in the most important aquifers.

Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude and (2) a local number that is provided for local needs. See figure 2.

Measurements are made in many types of wells under varying conditions of access and at different temperatures, hence, neither the method of measurement nor the equipment can be standardized. At each observation well, however, the equipment and techniques used are those that will ensure that measurements at each well are consistent.

Water-level measurements in this report are given in feet with reference to either National Geodetic Vertical Datum of 1929 (NGVD) or land-surface datum (lsd). Mean sea level is the datum plane on which the national network of precise levels is based; land-surface datum is a datum plane that is approximately at land surface at each well. If known, the altitude of the land-surface datum above mean sea level is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (eom).

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error of determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water, the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot.

Aquifer Names

The names of aquifers and their geologic ages adopted for use in Idaho are from the stratigraphic names listed in the Idaho section of the U.S. Geological Survey Bulletins 1056-B, 1200, and 1395-A. Names will be modified where necessary as official changes in stratigraphic nomenclature occur.

If a formal name has not been assigned to the aquifer, the lithology and its age are used to designate the water-bearing unit. Although some wells are supplied by more than one aquifer, only the major aquifer penetrated by the well is given in the well description.

Well Descriptions

For each well, the well description includes, if available, the following information: Latitude-longitude number, Idaho well number, owner, method of construction, use of well, type of well (artesian or water table), formal aquifer name or lithology and geologic age, diameter of casing, depth of well, depth of perforations or screen, altitude of land-surface datum, remarks of unusual conditions affecting the water level, acknowledgment of outside persons or agencies contributing data, and a description of the measuring point. The depth of the well at the time it was originally inventoried is given in the well description. If the well has been deepened or filled in, the new depth and date the change was discovered are noted following the notation of land-surface datum.

When a well is added to the State observation-well network, all its prior water-level measurements are included with the current year tabulation.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

Thirty-four manuals by the U.S. Geological Survey have been published to date in the series on techniques describing procedures for planning and executing specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) is on surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises. The reports listed below are for sale by the U.S. Geological Survey, Branch of Distribution, 1200 South Eads Street, Arlington, VA 22202 (authorized agent of the Superintendent of Documents, Government Printing Office. Prices are effective October 1978 but are subject to change.

NOTE: When ordering any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations".

1-D1. *Water temperature-influential factors, field measurement, and data presentation*, by H. H. Stevens Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages. $1.60.

1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W.W.Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages. $0.85

2-D1. *Application of surface geophysics to ground-water investigations*, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages. $1.90.

2-E1. *Application of borehole geophysics to water-resources investigations*, by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages. $1.75.

3-A1. *General field and office procedures for indirect discharge measurements*, by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages. $1.00.

3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages. $0.35.

3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages. $0.40.

3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages. $1.00.

3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages. $0.35.

3-A6. *General procedure for gaging streams*, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6, 1968, 13 pages. $1.00.

3-A7. *Stage measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages. $1.40.

3-A8. *Discharge measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages. $1.25.

3-A11. *Measurement of discharge by moving-boat method*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages. $1.20.

3-A12. *Fluorometric procedures for dye tracing*, by J. F. Wilson Jr.: USGS--TWRI Book 3, Chapter A12. 1968. 31 pages. $0.35. Not currently available.

3-B1. *Aquifer-test design, observation, and data analysis*, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages. $0.70.

3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction*, by G. D. Bennett: USGS--TWRI Book 3, Chapter B2 1976. 172 pages. $2.50.

3-C1. *Fluvial sediment concepts*, by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages. $2.50.

3-C2. *Field methods for measurement of fluvial sediment*, by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2, 1970. 59 pages. $2.50.

3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages. $2.10.

4-A1. *Some statistical tools in hydrology*, by H. C. Riggs: USGS--TWRI Book 4 Chapter A1. 1968. 39 pages. $1.60.

4-A2. *Frequency curves*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages. $1.20

4-B1. *Low-flow investigations*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972, 18 pages. $0.65.

4-B2. *Storage analyses for water supply*, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages. $0.75.

4-B3. *Regional analyses of streamflow characteristics*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages. $0.65.

4-D1. *Computation of rate and volume of stream depletion by wells*, by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages. $1.10.

5-A1. *Methods for collection and analysis of water samples for dissolved minerals and gases*, by Eugene Brown, M. W. Skougstad, and M. J. Fishman: USGS--TWRI Book 5, Chapter A1. 1970. 160 pages. $2.40.

5-A2. *Determination of minor elments in water by emission spectroscopy*, by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages. $0.80.

5-A3. *Methods for analysis of organic substances in water*, by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages. $0.90.

5-A4.* *Methods for collection and analysis of aquatic biological and microbiological samples*, edited by P.E. Greeson, T.A. Ehlke, G.A. Irwin. B.W. Lium, and K.V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 332 pages. $20.00.

5-A5.* *Methods for determination of radioactive substances in water and fluvial sediments*, by L.L. Thatcher, V.J. Janzer, and K.W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages. $16.00.

5-C1. *Laboratory theory and methods for sediment analysis*, by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages. $2.10.

7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages. $2.30.

8-A1. *Methods of measuring water levels in deep wells*, by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages. $0.70.

8-B2. *Calibration and maintenance of vertical-axis type current meters*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages. $1.10.

*These publications are available ONLY from Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. They are in looseleaf format and are subscription items. Additional supplements will be issued to subscribers at no extra cost. Checks should be made payable to Superintendent of Documents. Requester should emphasize to Superintendent of Documents that this is a subscription item.

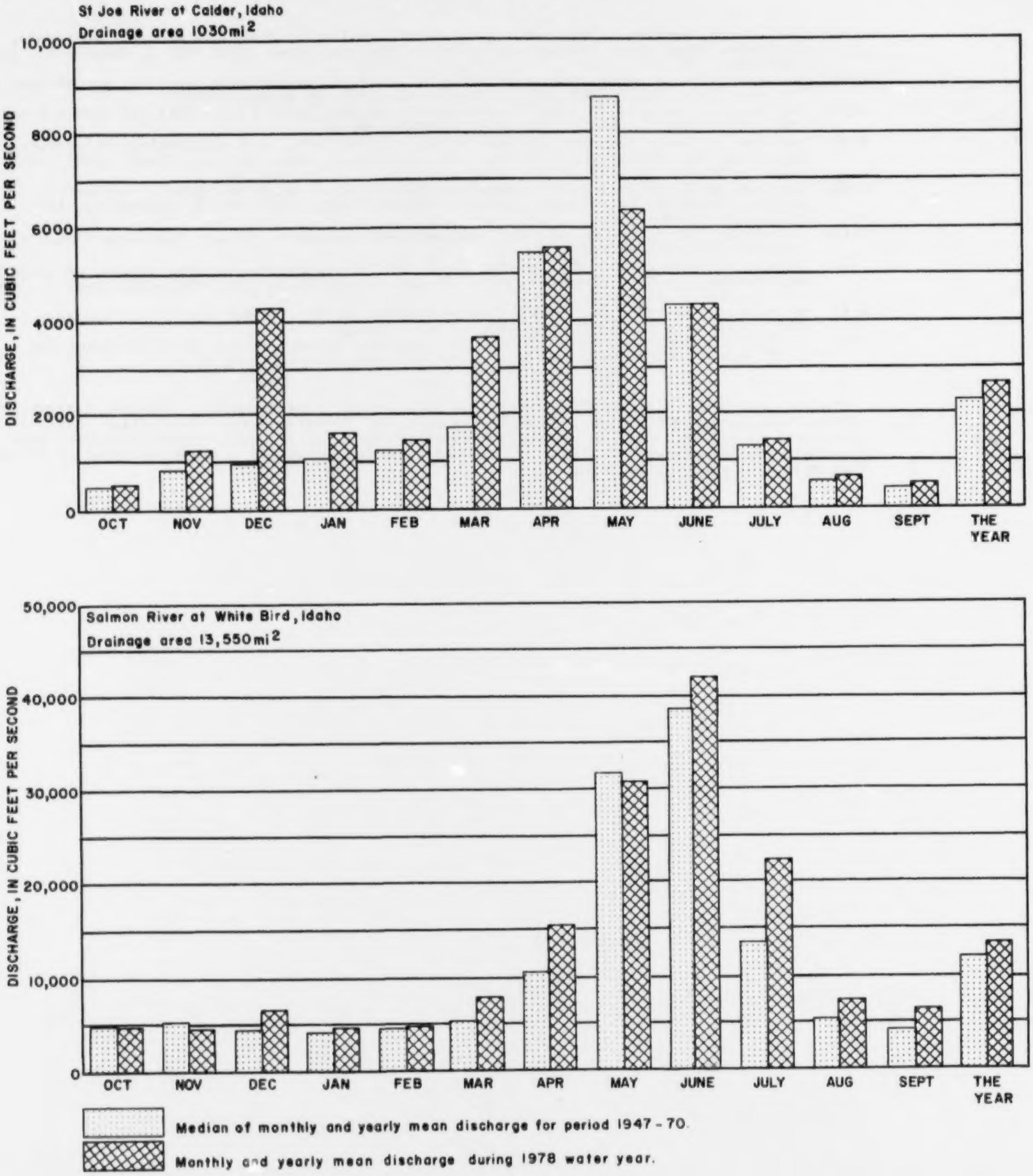


FIGURE 4.--Discharge during 1978 water year compared with median discharge for period 1941-70 for two representative gaging stations.

EXPLANATION

—

PART 13

River basin boundary and number

▲
321500

Gaging station and number
Inverted symbol indicates water-quality station

▼
Chemical-measurement site

▼
Temperature-measurement site

▼
Biological-measurement site

▼
Sediment-measurement site

△
Low-flow measurement site

▲
Crest-stage measurement site

51N-04W-18
●
Observation well and number

This explanation is for all 10 maps in this volume. Shaded areas on figures 5 and 8 indicate areas of detailed study. Data for these areas are listed in this report, but individual collection sites are not shown.

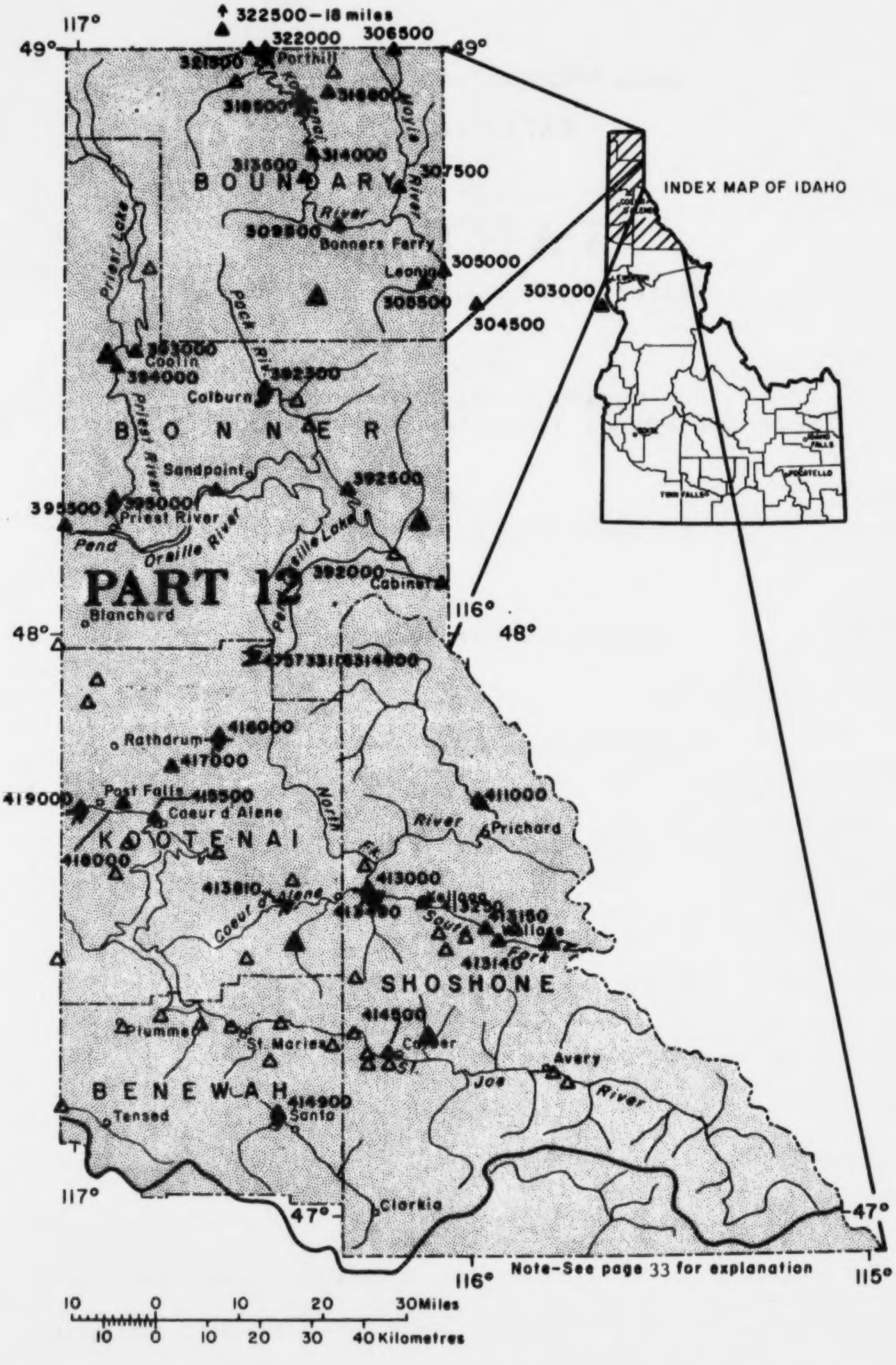

322500–18 miles
117°
49°
322000
306500
49°
321500
Porthill
318500
316800
314000
313500
BOUNDARY
307500
INDEX MAP OF IDAHO
River
309500
Bonners Ferry
Leonia
305000
303000
305500
304500
Priest Lake
Pack River
393000
Coolin
394000
392300
Colburn
BONNER
Sandpoint
392500
395500
395000
Priest River
Priest River
Pend Oreille River
Pend Oreille Lake
PART 12
392000
Cabinet
Blanchard
116°
48°
48°
416000
Rathdrum
417000
419000
Post Falls
415500
Coeur d'Alene
411000
North Fk.
River
Prichard
KOOTENAI
418000
413000
413810
Coeur d'Alene
413200
Kellogg
South Fork
413180
Wallace
413140
SHOSHONE
414500
Plummer
St. Maries
Calder
St. Joe River
Avery
BENEWAH
414900
Santa
Tensed
117°
47°
Clarkia
47°
116°
115°
Note–See page 33 for explanation
10 0 10 20 30 Miles
10 0 10 20 30 40 Kilometres

FIGURE 5.--Location of surface-water and water-quality stations in north Idaho.

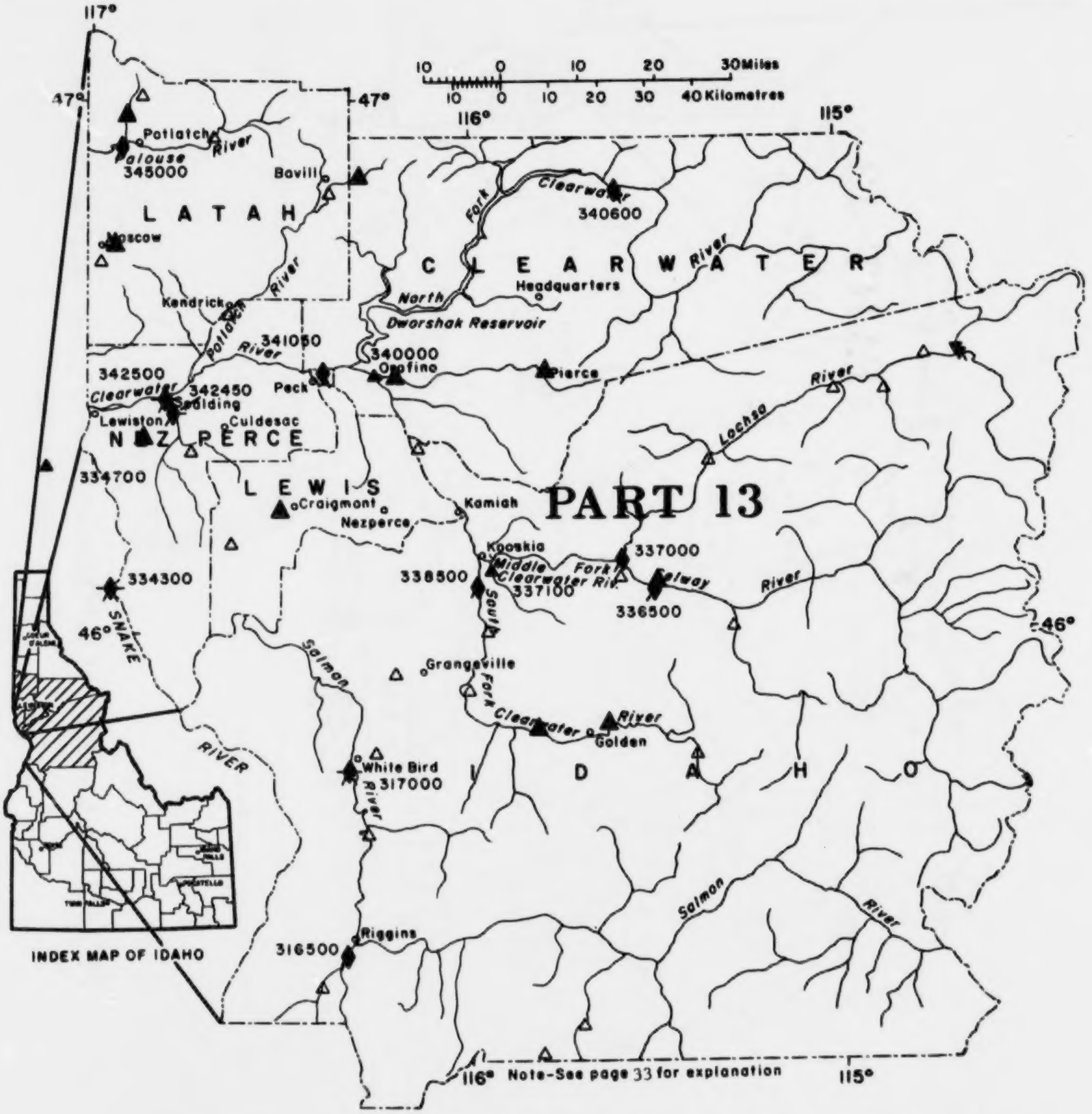
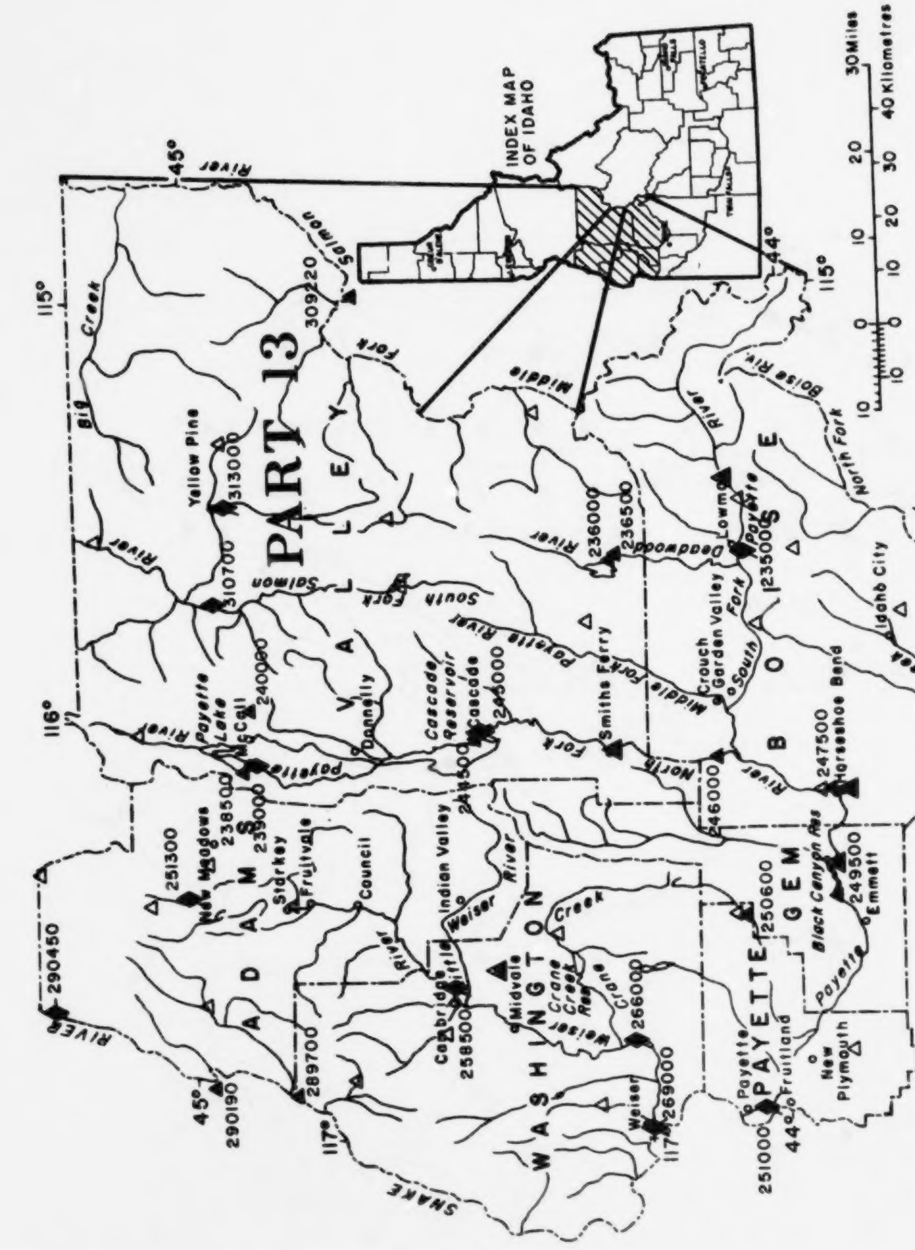

117°
47°
47°
116°
115°
10 0 10 20 30 Miles
10 0 10 20 30 40 Kilometres
Potlatch
River
Palouse
345000
Bovill
LATAH
Moscow
Kendrick
Potlatch
River
341050
River
342500
Clearwater
342450
Spalding
Peck
Lewiston
Culdesac
NEZ PERCE
334700
LEWIS
Craigmont
Nezperce
Kamiah
North
Fork
Clearwater
340600
CLEARWATER
River
Headquarters
North
Dworshak Reservoir
340000
Orofino
Pierce
River
Lochsa
PART 13
Kooskia
Middle Fork
Clearwater River
337000
337100
338500
Selway
River
336500
South
Fork
Clearwater
River
334300
SNAKE
46°
46°
Salmon
Grangeville
Golden
RIVER
White Bird
317000
River
IDAHO
Salmon
River
Riggins
316500
INDEX MAP OF IDAHO
116°
Note-See page 33 for explanation
115°

FIGURE 6.--Location of surface-water and water-quality stations in north-central Idaho.


INDEX MAP OF IDAHO
PART 13
115°
116°
117°
45°
44°
SNAKE RIVER
Salmon River
South Fork Salmon
Big Creek
Yellow Pine
313000
310700
309220
VALLEY
ADAMS
WASHINGTON
PAYETTE
GEM
BOISE
290450
290190
289700
251300
New Meadows
238500
239000
Starkey
Fruitvale
Council
Payette Lake
McCall
240000
Donnelly
Cascade Reservoir
Cascade
243000
248500
Indian Valley
Weiser River
Cambridge
258500
Midvale
Crane Creek Res
Crane Creek
266000
Weiser
269000
Payette
Fruitland
251000
New Plymouth
Black Canyon Res
249500
Emmett
250600
247500
Horseshoe Bend
246000
North Fork
Smiths Ferry
Middle Fork Payette River
Crouch
Garden Valley
South Fork Payette
235000
Lowman
236000
236500
Deadwood River
Middle Fork
Idaho City
Mores Creek
200000
194000
Boise River
North Fork Boise River
185000
Arrowrock Reservoir
10 0 10 20 30 Miles
10 0 10 20 30 40 Kilometres

Note - See page 33 for explanation

FIGURE 7.--Location of surface-water and water-quality stations in west-central Idaho.

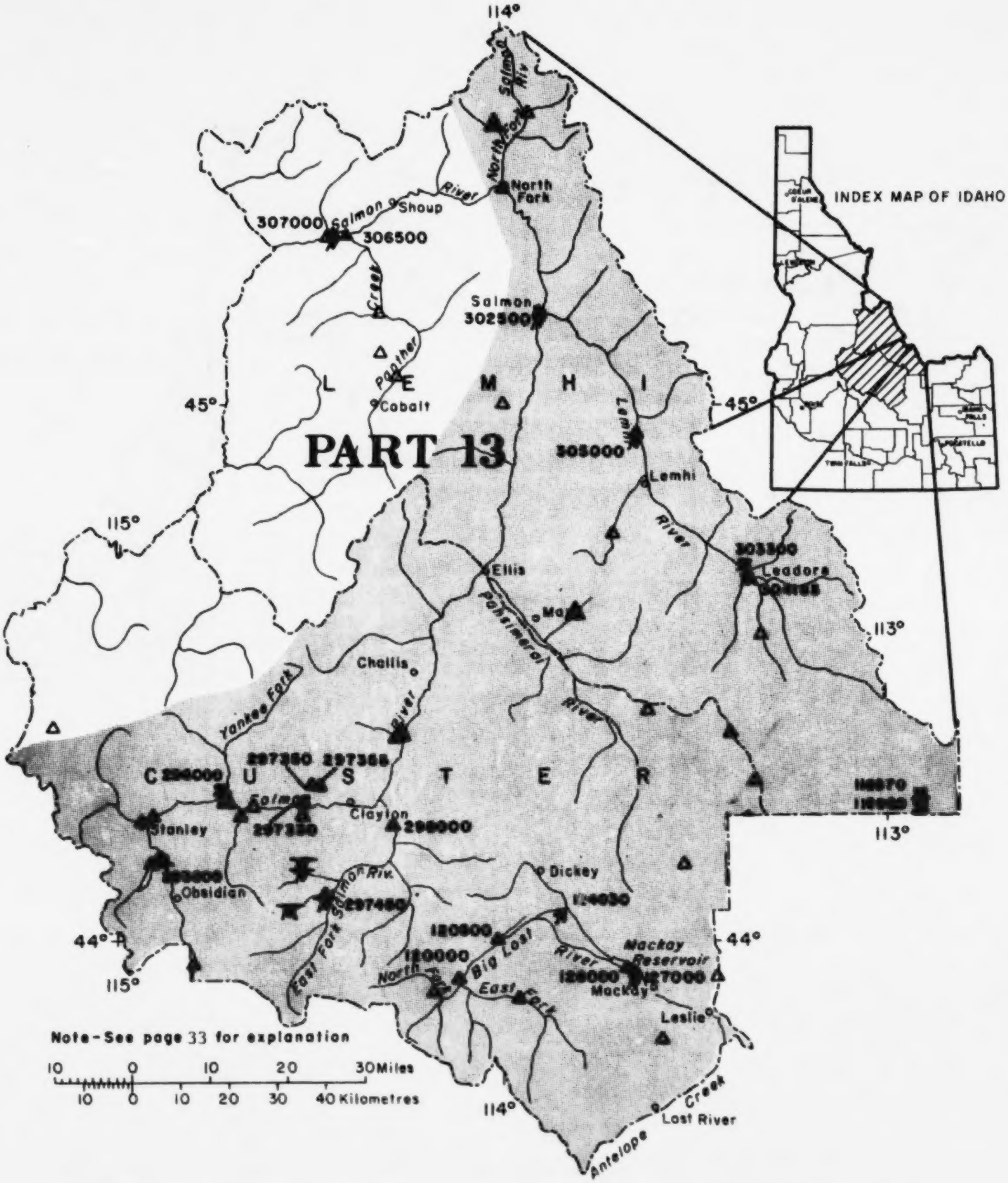
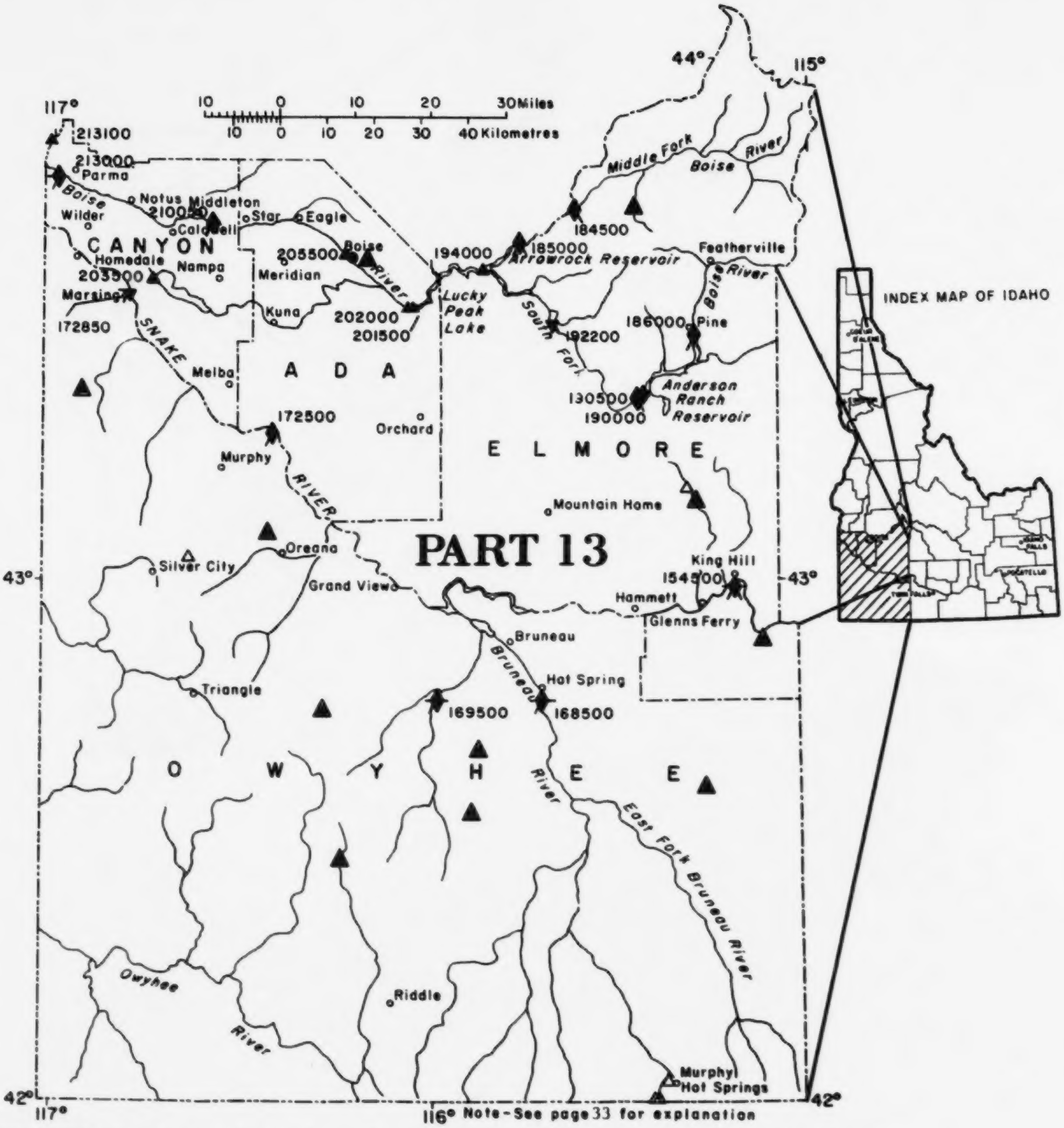

114°
Salmon Riv
North Fork
North Fork
River
Salmon
Shoup
307000
306500
Creek
Salmon
302500
Panther
L E M H I
Cobalt
45°
45°
PART 13
305000
Lemhi
Lemhi
River
115°
303300
Leadore
Ellis
Pahsimeroi
May
113°
Challis
Yankee Fork
River
River
297350
297366
C U S T E R
296000
Salmon
297330
Clayton
298000
Stanley
Obsidian
Salmon Riv.
297460
East Fork Salmon
Dickey
124030
120500
120000
North Fork
Big Lost
River
Mackay Reservoir
126000
127000
Mackay
East Fork
Leslie
44°
44°
115°
113°
114°
Antelope
Creek
Lost River
INDEX MAP OF IDAHO
Note-See page 33 for explanation
10 0 10 20 30 Miles
10 0 10 20 30 40 Kilometres

FIGURE 8.--Location of surface-water and water-quality stations in east-central Idaho.


117°
10 0 10 20 30 Miles
10 0 10 20 30 40 Kilometres
44°
115°
213100
213000
Parma
Boise
Notus
Middleton
210050
Wilder
Caldwell
Star
Eagle
CANYON
Homedale
Nampa
205500
Boise
Meridian
River
194000
185000
184500
Arrowrock Reservoir
Featherville
Boise River
Middle Fork
Boise River
203500
Marsing
172850
Kuna
202000
201500
Lucky Peak Lake
South Fork
192200
186000
Pine
Boise
SNAKE
Melba
A D A
130500
190000
Anderson Ranch Reservoir
172500
Orchard
E L M O R E
Murphy
RIVER
Mountain Home
PART 13
Oreana
Silver City
43°
Grand View
King Hill
154500
43°
Hammett
Glenns Ferry
Bruneau
Bruneau
Hot Spring
Triangle
169500
168500
O W Y H E E
River
East Fork Bruneau River
Owyhee
River
Riddle
Murphy Hot Springs
42°
117°
116°
42°
INDEX MAP OF IDAHO

Note-See page 33 for explanation

FIGURE 9.--Location of surface-water and water-quality stations in southwest Idaho.

KOOTENAI RIVER BASIN

12303000 KOOTENAI RIVER AT LIBBY, MT

LOCATION.--Lat 48°24'03", long 115°33'08", in SW¼SE¼SW¼ sec.34, T.31 N., R.31 W., Lincoln County, Hydrologic Unit 17010101, on right bank 1,800 ft (550 m) downstream from highway bridge at Libby, 0.8 mi (1.3 km) downstream from Libby Creek, and at mile 204.3 (328.7 km).

DRAINAGE AREA.--10,240 mi² (26,520 km²), approximately.

PERIOD OF RECORD.--October 1910 to current year. Monthly discharge only for some periods, published in WSP 1316.

REVISED RECORDS.--WSP 1042: 1933. WSP 1246: 1912(M), 1915(M), 1916, 1918-19(M), 1924-27(M).

GAGE.--Water-stage recorder. Datum of gage is 2,041.54 ft (622.261 m) National Geodetic Vertical Datum of 1929. Prior to Apr. 28, 1931, nonrecording gages at site 1,800 ft (550 m) upstream at different datum.

REMARKS.--Records good. Flow regulated by Lake Koocanusa since Mar. 21, 1972. Diversions for irrigation of about 14,500 acres (58.7 km²) from tributaries above station in Canada and the United States.

AVERAGE DISCHARGE.--67 years, 12,190 ft³/s (345.2 m³/s), 16.16 in/yr (410 mm/yr), 8,832,000 acre-ft/yr (10.9 km³/yr), adjusted for change in contents in Lake Koocanusa since Mar. 21, 1972.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 121,000 ft³/s (3,430 m³/s) June 21, 1916, gage height, 20.7 ft (6.31 m, present datum, derived from gage-relation study); minimum observed, 895 ft³/s (25.3 m³/s) Jan. 11, 1930 (result of discharge measurement).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 42,700 ft³/s (1,210 m³/s) Nov. 29, gage height, 11.08 ft (3.377 m); minimum daily, 3,200 ft³/s (90.6 m³/s) July 4, 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9590	19900	16200	4280	13100	12800	7430	5780	5610	18200	11700	11900
2	7470	19900	17200	12400	13200	8690	6670	6110	6240	16300	11400	4660
3	11700	20900	5680	14100	13300	5400	6050	6290	7250	18500	11400	4160
4	16800	20900	5420	14100	5810	4350	5570	6000	7670	19000	11700	4050
5	12100	12700	10000	14200	4200	4300	5280	5610	7980	19000	11400	8250
6	13200	20600	7880	12900	10100	4310	4950	5290	9710	19800	11500	14300
7	15700	19500	4890	4510	11300	4300	4690	5110	11000	20600	11400	14300
8	8000	14900	10800	4420	11000	4380	4500	4940	12000	15600	10800	14400
9	5300	20100	18400	12400	11100	4440	4390	5060	13900	10300	13500	14500
10	7080	20300	7140	14000	11100	4360	4310	6200	10000	14600	15100	14400
11	9960	20300	4760	14100	5910	4360	4380	6610	5660	15400	15100	8490
12	15000	7200	8470	13800	4240	4380	4420	5970	8430	15300	12400	9590
13	14700	4490	7830	13500	9850	4380	4360	5260	11900	15400	4620	9570
14	13900	12400	7190	5930	9000	4360	4330	5940	12100	15400	6670	9680
15	5680	11800	5420	4370	11400	4370	4290	7100	12000	12900	8680	10600
16	4250	12500	9640	11900	11300	4360	4330	6820	9690	9380	4600	4810
17	9540	13500	5310	13500	9020	4380	4320	6320	6090	14500	8570	4080
18	5190	20200	5020	13400	5990	3630	4270	6130	5530	15600	9640	6130
19	13100	19600	4850	13600	4290	3660	4210	6020	10400	15600	5220	9770
20	20300	19900	6040	13400	9740	3860	4240	6110	10400	9500	4130	9730
21	10100	19900	5540	5800	11300	4020	4340	6330	6000	5070	8580	11600
22	13800	19900	4650	4200	11400	4190	4350	6800	5430	4290	10300	14400
23	6720	19900	4620	11500	11300	4440	4290	6080	5360	4250	10200	14400
24	13800	19800	4530	12500	12100	5120	4240	6280	5240	5200	10200	14500
25	11300	20000	4450	13100	6030	5270	4210	6150	5170	8230	9670	14500
26	7970	19000	4430	13200	4210	5240	4300	5890	8790	9840	7490	14500
27	8090	5060	12400	13200	10600	5540	4800	5760	11800	10700	5540	14400
28	8660	11500	14100	5790	12600	6040	5440	5880	9680	14500	7520	14400
29	6730	18900	14200	4260	---	6310	5540	6080	14600	12200	11100	14400
30	4370	13600	14200	11600	---	6590	5440	5850	14500	9720	11600	14400
31	12400	---	6520	13000	---	7730	---	6960	---	11900	10200	---
TOTAL	322500	499150	257780	332960	264490	159560	143940	186730	270130	406780	301930	328870
MEAN	10400	16640	8315	10740	9446	5147	4798	6024	9004	13120	9740	10960
MAX	20300	20900	18400	14200	13300	12800	7430	7100	14600	20600	15100	14500
MIN	4250	4490	4430	4200	4200	3630	4210	4940	5170	4250	4130	4050
AC-FT	639700	990100	511300	660400	524600	316500	285500	370400	535800	806800	598900	652300
MEAN†	4842	4018	4038	3308	3234	5017	9806	27830	39420	23900	9431	8777
CFSM†	.47	.39	.39	.32	.32	.49	.96	2.72	3.85	2.33	.92	.86
IN†	.55	.44	.45	.37	.33	.56	1.07	3.13	4.30	2.69	1.06	.96
AC-FT†	297700	239100	248300	203400	179600	308500	583500	1711400	2345800	1469800	579900	522300

CAL YR 1977 TOTAL 3432190 MEAN 9403 MAX 20900 MIN 3200 AC-FT 6808000
WTR YR 1978 TOTAL 3474820 MEAN 9520 MAX 20900 MIN 3630 AC-FT 6892000

CAL YR 1977† TOTAL 2747063 MEAN 7526 CFSM 0.73 IN 9.98 AC-FT 5448800
WTR YR 1978† TOTAL 4380790 MEAN 12000 CFSM 1.17 IN 15.91 AC-FT 4380790

† Adjusted for change in contents in Lake Koocanusa.

12304500 YAAK RIVER NEAR TROY, MT.

LOCATION.--Lat 48°33'43", long 115°58'09", in NE¼SE¼SE¼ sec.5, T.32 N., R.34 W., Lincoln County, Hydrologic Unit 17010103, Kootenai National Forest, on right bank 500 ft (150 m) upstream from bridge on U.S. Highway 2, 0.2 mi (0.3 km) upstream from mouth, and 7.7 mi (12.4 km) northwest of Troy.

DRAINAGE AREA.--766 mi² (1,984 km²).

PERIOD OF RECORD.--October 1910 to September 1916 (fragmentary record), March 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,839.2 ft (560.59 m) National Geodetic Vertical Datum of 1929. Oct. 15,1910, to Sept. 30,1916, nonrecording gage at several sites within 11 mi (18 km) of present site at various datums.

REMARKS.--Water-discharge records good except those for winter period, which are poor. Diversions for irrigation of about 30 acres (0.12 km²) above station.

AVERAGE DISCHARGE.--22 years, 916 ft³/s (25.94 m³/s), 16.24 in/yr (412 mm/yr), 663,600 acre-ft/yr (818 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,100 ft³/s (343 m³/s) May 21, 1956, gage height, 9.70 ft (2.957 m) in gage well, 10.8 ft (32.9 m) from outside gage; minimum daily, 50 ft³/s (1.42 m³/s) Dec. 9, 1972.

EXTREMES OUTSIDE PERIOD OF RECORDS.--Flood in May to June 1948 reached a stage of 11.0 ft (3.35 m) from floodmarks (discharge, 12,500 ft³/s or 354 m³/s). Flood in May 1954 reached a stage of 11.4 ft (3.47 m) from floodmarks (discharge, 13,400 ft³/s or 379 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,010 ft³/s (170 m³/s) May 16, gage height, 7.67 ft (2.338 m), only peak above base of 5,000 ft³/s (142 m³/s); minimum daily, 90 ft³/s (2.55 m³/s) Nov. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	137	169	454	135	140	148	3040	3560	2540	606	311	245
2	130	366	392	130	145	132	2400	3660	2730	768	296	219
3	121	406	361	160	150	120	1990	3790	3090	722	285	199
4	115	295	314	190	160	130	1730	3460	3450	741	276	184
5	113	237	268	220	168	135	1660	2920	3720	780	267	176
6	111	211	258	260	158	145	1550	2520	3760	782	256	188
7	114	221	247	240	159	149	1400	2330	3450	799	246	227
8	117	194	192	225	165	170	1330	2330	3190	778	237	252
9	122	166	192	210	165	202	1280	2680	2910	891	229	261
10	119	155	208	200	161	199	1290	3960	2530	1030	220	236
11	113	163	276	190	150	197	1500	3930	2180	1010	211	216
12	111	180	414	195	135	198	1580	3550	1910	857	214	212
13	117	138	400	200	125	196	1450	3120	1810	757	229	220
14	121	204	430	216	130	191	1360	3670	1710	682	224	213
15	117	217	565	209	135	187	1270	5430	1620	623	235	213
16	114	192	586	199	140	182	1290	5650	1490	585	285	224
17	111	175	489	198	145	185	1360	4980	1410	564	271	212
18	109	183	426	183	149	206	1310	4680	1350	610	266	203
19	107	130	345	174	148	261	1300	4550	1330	670	274	195
20	106	115	295	179	148	306	1480	4640	1230	625	242	189
21	105	90	258	171	151	372	1680	4870	1170	554	279	188
22	105	110	307	170	153	490	1640	4490	1140	512	259	209
23	107	150	305	160	154	624	1500	4290	1080	478	244	234
24	108	250	238	150	159	1120	1370	3680	1000	447	233	262
25	126	350	180	155	157	1310	1330	3410	977	420	221	258
26	140	500	170	164	156	1410	1610	3030	1050	398	214	229
27	160	736	160	160	158	1740	2420	2710	929	390	206	210
28	144	602	150	165	160	1930	3220	2750	843	382	199	210
29	140	559	160	155	---	2150	3440	2930	832	362	190	204
30	162	516	150	150	---	2670	3380	2710	842	342	184	190
31	176	---	140	145	---	3480	---	2650	---	325	196	---
TOTAL	3798	7990	9332	5658	4224	20935	53160	113230	57273	19720	7555	6466
MEAN	123	266	301	182	151	675	1772	3653	1909	636	244	216
MAX	176	736	586	260	168	3480	3440	5650	3760	1030	311	262
MIN	105	90	140	130	125	120	1270	2330	832	325	184	176
CFSM	.16	.35	.39	.24	.20	.88	2.31	4.77	2.49	.83	.32	.26
IN.	.18	.39	.45	.27	.21	1.02	2.58	5.50	2.78	.96	.37	.31
AC-FT	7530	15850	18510	11210	8380	41520	105400	224600	113600	39110	14990	12800

CAL YR 1977 TOTAL 108538 MEAN 297 MAX 1820 MIN 55 CFSM .39 IN 5.27 AC-FT 215300
WTR YR 1978 TOTAL 309356 MEAN 848 MAX 5650 MIN 90 CFSM 1.11 IN 15.02 AC-FT 613600

12305000 KOOTENAI RIVER AT LEONIA, ID

LOCATION.--Lat 48°37'04", long 116°02'47", in NW¼NW¼ sec.20, T.33 N., R.34 W., Principal meridian, Lincoln County, Mont., Hydrologic Unit 17010104, on right bank at Leonia, 450 ft (137 m) east of Montana-Idaho State line, 0.5 mi (0.8 km) upstream from Boulder Creek, and at mile 171.6 (276.1 km).

DRAINAGE AREA.--11,740 mi² (30,407 km²), approximately.

PERIOD OF RECORD.--March 1928 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,790.25 ft (545.668 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1970, at datum 90 ft (27.4 m) lower. Prior to Nov. 13, 1928, nonrecording gage on bridge 250 ft (76.2 m) upstream at datum 90.41 ft (27.557 m) lower.

REMARKS.--Records fair. Diversions above station for irrigation of about 14,600 acres (5,900 hm²). Flow regulated by Libby Dam since Mar. 21, 1972 (see sta 12303000). Corps of Engineers radio telemeter at station.

AVERAGE DISCHARGE.--50 years, 14,020 ft³/s (397 m³/s), 16.22 in/yr (412 mm/yr), 10,160,000 acre-ft/yr (12.6 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 123,000 ft³/s (3,480 m³/s) May 28, 1948, gage height, 33.40 ft (10.180 m); minimum, 996 ft³/s (28.2 m³/s) Dec. 9, 1936; minimum gage height, 7.56 ft (2.304 m) Dec. 10, 1929.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of June 1894 and 1916 reached stages of 34.6 (10.546) and 31.6 ft (9.63 m), respectively, present datum, from information by Great Northern Railway.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 25,000 ft³/s (708 m³/s) June 9, gage height, 17.41 ft (5.307 m); minimum, 4,240 ft³/s (120 m³/s) May 18, gage height, 10.27 ft (3.130 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

9.0	2,720	13.0	10,000
10.0	3,890	16.0	19,700
11.0	5,490	19.0	33,200

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12600	20500	17500	5100	13700	13400	14200	11900	10800	19500	12500	11600
2	8170	20600	19300	9290	13900	12200	12300	12800	11300	17800	12400	10500
3	11600	21800	8290	19400	13900	6160	10800	13300	13400	20300	12300	5800
4	19500	21600	7010	14900	9900	5460	9890	12500	14700	20800	12500	5200
5	10300	15900	10300	15100	5070	5060	9390	11200	15600	20800	12200	6600
6	12900	18900	9890	15600	8080	5000	8850	10400	16900	21300	12300	12500
7	16200	20600	6410	7660	12200	4980	8290	9890	18600	22500	12100	13800
8	10400	18400	8370	5480	11900	5060	7850	9670	17300	17500	11800	14600
9	7950	17600	18900	9590	11800	5300	7570	10100	20400	14800	13000	14800
10	6040	20800	11600	14800	11900	5210	7440	13200	17400	14400	15700	15000
11	10800	20800	6020	14900	8990	5170	7710	14300	11500	17500	15700	13000
12	13000	11700	9220	14700	5060	5170	7920	13000	10900	17100	14600	9600
13	15300	5390	8100	14300	7750	5190	7660	11400	15800	17100	7710	10400
14	15100	10600	10800	10200	9520	5150	7460	12500	16200	16900	6750	10400
15	9340	12800	7710	5350	12200	5130	7280	17200	15800	15500	7950	11400
16	4770	13300	10200	9420	12000	5150	7300	17700	14200	12400	7680	7270
17	8270	13200	8850	14100	9560	5170	7440	15900	11100	13500	7080	4800
18	7530	20700	6880	14200	9580	4760	7230	15100	8850	17100	10400	5210
19	4690	20400	6430	14300	5040	4540	7120	14700	11600	17100	8440	10400
20	20600	19900	6160	14200	7710	4870	7390	15000	14500	13600	4980	10500
21	14400	20300	8050	9880	11900	5220	7830	15800	10400	7900	6900	11200
22	10400	20200	5970	5130	12000	5660	7800	16600	8770	5630	10700	14900
23	11000	20300	5930	9020	12100	6220	7550	15000	8370	5500	11000	15000
24	10400	20200	5720	13300	12600	7920	7230	13500	8170	5400	11000	15100
25	13700	20400	5440	13800	9840	8700	7150	12900	7920	8800	11500	15000
26	9340	21100	5440	13900	5020	8720	7590	11900	9370	10200	9200	15000
27	8000	8850	9570	13800	8220	9490	9290	11200	14500	11500	8300	15000
28	9340	8800	14800	9820	13300	10300	11300	11300	12700	15300	6400	15000
29	9170	20600	15000	5120	---	11000	11900	11700	15300	13200	9300	14900
30	5050	14100	15000	9030	---	12200	11800	11200	16600	12000	11800	14900
31	9320	---	10500	13700	---	15100	---	12100	---	11700	11800	---
TOTAL	340230	520340	299360	359090	284740	218660	260530	405160	398950	454630	325990	349380
MEAN	10980	17340	9657	11580	10170	7054	8684	13070	13300	14670	10520	11650
MAX	20600	21800	19300	19400	13900	15100	14200	17700	20400	22500	15700	15100
MIN	4770	5390	5440	5100	5020	4540	7120	9670	7920	5400	4980	4800
AC-FT	674800	1032000	593800	712300	564800	433800	516800	803600	791300	901800	646600	693000

CAL YR 1977 TOTAL 3764700 MEAN 10310 MAX 21800 MIN 3600 AC-FT 7467000
WTR YR 1978 TOTAL 4217080 MEAN 11550 MAX 22500 MIN 4540 AC-FT 8365000

12306500 MOYIE RIVER AT EASTPORT, ID
(International gaging station)

LOCATION.--Lat 48°59'58", long 116°10'43", in NW¼NE¼SE¼ sec.10, T.65 N., R.2 E., Boundary County, Hydrologic Unit 17010105, Kaniksu National Forest, on left bank at Eastport, 1,000 ft (305 m) downstream from international boundary, and at mile 25.0 (40.2 km).

DRAINAGE AREA.--570 mi^2 (1,476 km^2), approximately.

PERIOD OF RECORD.--January to December 1915, March to December 1916, August 1929 to current year in reports of Geological Survey. Monthly discharge only for some periods, published in WSP 1736.

GAGE.--Water-stage recorder. Datum of gage is 2,620.06 ft (798.594 m) National Geodetic Vertical Datum of 1929. January 1915 to December 1916 nonrecording gage at site 0.2 mi (0.3 km) upstream at different datum.

REMARKS.--Records good except those for winter periods, which are fair. No regulation or diversion above station.

COOPERATION.--This station is one of the international gaging stations maintained by the United States under agreement with Canada. Three discharge measurements per year furnished by Water Survey of Canada.

AVERAGE DISCHARGE.--49 years, 713 ft^3/s (20.2 m^3/s), 16.99 in/yr (431.5 mm/yr), 516,600 acre-ft/yr (637 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 10,600 ft^3/s (300 m^3/s) June 19, 1916; maximum gage height, 10.55 ft (3.216 m) May 20, 1954; minimum discharge, 23 ft^3/s (0.651 m^3/s) Nov. 7, 1936 (gage height, 3.20 ft or 0.975 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,900 ft^3/s (82.1 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 3	0600	3790	107	7.50	2.286	May 15	1115	*4680	133	*8.03	2.448
May 10	0230	3770	107	7.47	2.277	June 6	0045	3450	97.7	7.26	2.213

Minimum discharge, 51 ft^3/s (1.44 m^3/s) Mar. 3, gage height, 3.39 ft (1.033 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 18 to Dec. 10, Dec. 19 to Jan. 27, Jan. 30 to Feb. 5, Feb. 11-15, 23-25, Mar. 1-6)

3.4	49	5.0	833
3.6	87	5.5	1,250
3.8	142	6.5	2,400
4.1	260	7.9	4,540
4.5	483		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	90	102	140	70	88	86	1310	2990	2300	817	217	130
2	88	209	165	73	91	74	1180	3260	2350	763	205	124
3	87	156	170	80	94	75	1050	3060	2620	718	193	118
4	87	149	165	95	96	77	971	3240	2900	718	185	113
5	87	142	155	110	99	80	940	2780	3120	711	174	118
6	87	142	170	125	99	82	878	2440	3210	661	163	127
7	87	142	190	130	102	83	832	2260	3090	640	159	136
8	87	124	185	130	102	85	817	2210	2980	606	152	146
9	87	124	170	128	107	90	802	2570	2870	763	136	148
10	87	133	250	125	99	92	809	3550	2740	832	133	140
11	87	136	415	120	88	94	924	3420	2460	825	127	135
12	85	130	457	118	84	97	963	3040	2170	778	124	135
13	90	136	445	116	85	97	947	2750	2020	718	130	140
14	87	142	450	115	86	97	916	3130	1940	654	124	133
15	87	139	423	114	88	94	870	4460	1780	606	124	136
16	87	133	280	113	92	97	862	4240	1630	572	130	150
17	85	118	221	112	94	94	870	3840	1520	540	127	139
18	83	96	197	111	92	97	832	3770	1410	514	136	136
19	85	89	170	110	92	110	832	3760	1470	534	136	133
20	85	86	155	104	92	121	932	3960	1380	482	152	130
21	85	90	150	105	94	146	1010	4220	1320	445	139	126
22	85	105	150	107	97	185	979	4380	1260	409	130	141
23	83	135	145	106	94	234	932	3880	1180	374	127	153
24	83	150	125	105	92	363	893	3030	1110	341	124	163
25	87	205	110	104	93	439	901	3360	1060	315	121	159
26	92	225	100	103	94	534	1110	2950	1050	294	118	159
27	92	220	91	102	94	654	1650	2690	992	290	113	161
28	90	215	84	102	94	763	2310	2640	950	265	110	167
29	97	195	77	99	---	832	2660	2780	887	252	107	163
30	102	175	72	95	---	1040	2880	2610	841	238	110	161
31	102	---	71	93	---	1400	---	2460	---	225	115	---
TOTAL	2733	4343	6168	3331	2622	8412	33862	100930	56600	16900	4341	4222
MEAN	88.2	145	199	107	93.6	271	1129	3256	1887	545	140	141
MAX	102	225	457	130	107	1400	2880	4460	3210	832	217	167
MIN	83	86	71	70	84	74	802	2210	841	225	107	113
CFSM	.16	.25	.35	.19	.16	.48	1.98	5.71	3.31	.96	.25	.25
IN.	.18	.28	.40	.22	.17	.55	2.21	6.59	3.49	1.10	.28	.28
AC-FT	5420	8610	12230	6610	5200	16690	67170	200200	112300	33520	8610	8370

CAL YR 1977 TOTAL 97105 MEAN 266 MAX 1890 MIN 48 CFSM .47 IN 6.34 AC-FT 192600
WTR YR 1978 TOTAL 244464 MEAN 670 MAX 4460 MIN 70 CFSM 1.18 IN 15.95 AC-FT 484900

12307500 MOYIE RIVER AT EILEEN, ID

LOCATION.--Lat 48°46'27", long 116°09'26", in NE¼NE¼NE¼ sec.35, T.63 N., R.2 E., Boundary County, Hydrologic Unit 17010105, on right bank 800 ft (244 m) downstream from Skin Creek, 0.3 mi (0.5 km) southeast of Eileen, and at mile 5.0 (8 km).

DRAINAGE AREA.--755 mi^2 (1,955 km^2).

PERIOD OF RECORD.--October 1925 to September 1978 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 2,124.5 ft (648 m) National Geodetic Vertical Datum of 1929 (river-profile survey). Prior to June 1, 1928, nonrecording gage and June 1, 1928, to Sept. 30, 1944, water-stage recorder at same site at datum 1.0 ft (0.3 m) higher.

REMARKS.--Records good except those for winter period, which are fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--53 years, 885 ft^3/s (25.1 m^3/s), 15.92 in/yr (404 mm/yr), 641,200 acre-ft/yr (791 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,000 ft^3/s (312 m^3/s) May 20, 1954, gage height, 6.99 ft (2.131 m); minimum, 40 ft^3/s (1.13 m^3/s) Nov. 27, 1936, and Dec. 17, 1964, both the result of freezeup; minimum gage height, 0.50 ft (0.15 m) Feb. 22, 1944, present datum.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 19, 1916, was about 12,000 ft^3/s (340 m^3/s).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 3,500 ft^3/s (99.1 m^3/s) and maximum (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)	Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)
May 3	0845	4450	126	4.63	1.411	June 6	0145	4220	120	4.53	1.381
May 15	1630	*5700	161	5.05	1.539						

Minimum discharge, 107 ft^3/s (3.03 m^3/s) Nov. 20, Mar. 2; minimum gage height, 1.05 ft (0.320 m) Mar. 2.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 20-25, Dec. 20 to Feb. 7, Feb. 13-15, Mar. 2-5)

0.9	62	2.4	741
1.1	102	3.0	1,370
1.4	183	4.0	2,450
1.8	346	5.0	5,700

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	138	161	230	110	130	152	1850	3650	2900	980	306	185
2	133	272	247	110	135	130	1650	3970	2970	911	291	190
3	130	277	253	115	140	140	1460	4320	3290	857	277	180
4	128	222	232	125	145	155	1340	3940	3640	873	265	172
5	128	208	180	145	150	165	1270	3460	3920	869	251	172
6	128	201	276	170	160	171	1190	3060	4010	803	237	184
7	130	209	331	185	165	165	1120	2830	3830	772	227	200
8	128	194	263	190	177	171	1090	2760	3680	734	216	212
9	128	174	207	185	165	180	1060	3080	3500	885	208	214
10	126	186	243	183	165	190	1070	4270	3320	976	199	206
11	125	189	528	180	155	190	1180	4140	2970	984	191	199
12	124	188	610	178	146	196	1230	3770	2640	925	188	196
13	127	195	508	172	135	200	1200	3460	2450	857	189	200
14	128	214	477	170	140	196	1140	3870	2340	789	190	198
15	125	208	502	168	145	193	1070	5320	2180	734	191	196
16	125	197	428	165	152	193	1080	5320	2010	697	204	208
17	123	188	336	165	152	196	1100	4840	1890	675	205	204
18	120	182	307	165	152	203	1040	4740	1750	651	199	194
19	120	151	263	163	155	232	1030	4640	1770	658	203	189
20	118	135	220	163	152	255	1180	4830	1680	611	220	185
21	118	120	200	163	158	298	1320	5120	1600	571	216	183
22	118	130	185	160	165	367	1290	5390	1520	534	201	188
23	116	150	170	160	168	452	1220	4790	1430	499	195	203
24	116	190	155	158	171	662	1160	4410	1360	465	198	218
25	120	270	140	155	171	752	1150	4110	1280	433	184	214
26	125	374	130	150	171	822	1390	3660	1280	408	182	210
27	125	345	125	145	171	978	2080	3320	1180	399	177	213
28	125	316	120	140	174	1090	2890	3240	1100	378	171	219
29	132	303	125	135	---	1190	3300	3480	1060	356	168	218
30	151	246	130	130	---	1460	3530	3270	1000	338	165	214
31	151	---	120	130	---	1910	---	3090	---	318	169	---
TOTAL	3929	6395	8241	4833	4365	13654	43680	124150	69550	20940	6473	5964
MEAN	127	213	266	156	156	440	1456	4005	2318	675	209	199
MAX	151	374	610	190	177	1910	3530	5390	4010	984	306	219
MIN	116	120	120	110	130	130	1030	2760	1000	318	165	172
CFSM	.17	.28	.35	.21	.21	.58	1.93	5.31	3.07	.89	.28	.26
IN.	.19	.32	.41	.24	.22	.67	2.15	6.12	3.43	1.03	.32	.29
AC-FT	7790	12680	16350	9590	8660	27080	86640	246300	138000	41530	12840	11830

CAL YR 1977 TOTAL 132045 MEAN 362 MAX 2420 MIN 68 CFSM .48 IN 6.51 AC-FT 261900
WTR YR 1978 TOTAL 312174 MEAN 855 MAX 5390 MIN 110 CFSM 1.13 IN 15.38 AC-FT 619200

12309500 KOOTENAI RIVER AT BONNERS FERRY, ID

LOCATION.--Lat 48°42'00", long 116°18'45", in NW¼SE¼NE¼ sec.27, T.62 N., R.1 E., Boundary County, Hydrologic Unit 17010104, on left bank 43 ft (13 m) downstream from highway bridge at Bonners Ferry, and at mile 152.8 (245.9 km).

DRAINAGE AREA.--13,000 mi² (33,670 km²), approximately.

PERIOD OF RECORD.--May to October 1904, October 1927 to current year (elevations only prior to March 1928 and October 1960 to current year). Gage heights collected in this vicinity since 1904 are contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 1716: Maximum elevation.

GAGE.--Water-stage recorder. Datum of gage is 1,743.00 ft (531.266 m) above mean sea level with respect to Geological Survey bench mark V-3-1929 at elevation 1,777.08 ft (541.654 m). Gage heights have been reduced to elevations above that datum. NGVD of 1929, supplementary adjustment of 1947, is 0.02 ft (0.061 m) higher. May 1 to Oct. 15, 1904, nonrecording gage on railroad bridge 0.8 mi (1.3 km) downstream at different datum. Oct. 1, 1927, to Nov. 30, 1929, nonrecording gage near left bank. Dec. 1, 1929, to June 12, 1933, nonrecording gages on old highway bridge 40 ft (12 m) downstream. Nonrecording gage near right bank on downstream side of highway bridge at Bonners Ferry June 13, 1933, to Sept. 30, 1960, and supplementary gage thereafter. Datum of gages Oct. 1, 1927, to Jan. 2, 1931, was about 0.23 ft (0.070 m) lower.

REMARKS.--Elevations affected by backwater from Kootenay Lake. No drainage district dike failed during year. Flow regulated by Libby Dam since Mar. 21, 1972 (see sta 12305000).

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,780.13 ft (542.584 m) May 29, 1961; minimum, 1,741.14 ft (530.699 m) Dec. 5, 1929, Dec. 29, 1930, datum then in use.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1894 reached a stage of 1,777.2 ft (541.69 m), present datum.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,755.33 ft (535.025 m) June 10; minimum elevation, 1,743.53 ft (531.428 m) Mar. 19, 20.

REVISIONS.--The maximum elevation for the water year 1976 has been revised to 1,760.26 ft (536.527 m) Dec. 4, 1976, superseding figure published in the report for 1976. The minimum elevation for the water year 1975 has been revised to 1,742.87 ft (531.227 m) Apr. 10, 11, 12, superseding figure published in the report for 1975.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50.26	51.47	50.67	45.74	48.00	47.40	49.10	48.71	49.99	52.42	48.60	48.07
2	47.42	52.15	50.91	46.66	48.09	47.38	48.16	49.25	49.72	52.40	48.49	47.46
3	47.65	52.64	49.12	49.57	48.09	44.88	46.52	49.89	50.61	52.92	48.35	46.05
4	50.95	52.72	47.17	49.17	47.83	44.52	46.66	49.77	51.58	53.21	48.35	46.00
5	48.20	52.02	47.21	49.21	44.87	44.13	46.19	49.07	52.41	53.21	48.31	46.00
6	48.85	50.44	48.35	49.39	44.93	44.01	45.97	48.33	53.13	53.24	48.33	48.30
7	49.92	52.31	47.29	47.94	47.31	44.28	45.64	47.85	53.91	53.65	48.32	49.46
8	49.43	51.98	46.53	45.91	47.19	44.25	45.41	47.65	53.71	52.50	48.19	49.50
9	47.51	50.56	50.35	46.15	47.19	44.31	45.27	47.80	54.46	51.86	48.08	49.72
10	46.58	52.18	49.99	48.99	47.20	44.29	45.17	49.57	54.44	50.10	49.42	49.70
11	47.94	52.29	46.86	49.17	46.84	44.22	45.28	50.61	52.48	51.30	49.49	48.87
12	48.65	50.57	47.33	49.22	44.59	44.17	45.41	50.32	51.42	51.25	49.36	47.69
13	49.96	46.90	48.12	49.17	44.69	44.12	45.33	49.40	52.47	50.85	47.38	47.86
14	50.07	47.20	48.55	48.58	46.66	44.06	45.23	49.59	53.19	50.70	45.64	47.74
15	49.37	49.17	47.56	45.80	46.43	44.00	45.12	51.81	52.98	50.50	46.16	47.77
16	46.88	49.32	47.52	46.00	46.97	43.95	45.07	53.31	52.65	49.80	46.93	47.25
17	47.14	48.45	48.59	48.63	46.68	43.88	45.10	52.72	51.54	49.00	45.69	45.68
18	48.30	51.42	47.04	48.74	46.14	43.77	45.06	52.23	50.32	51.00	47.31	45.52
19	47.34	51.83	46.73	48.72	44.36	43.55	44.99	52.02	50.49	51.05	47.32	46.98
20	51.48	51.66	46.52	48.72	44.52	43.55	45.06	52.20	51.75	50.80	45.57	47.40
21	51.38	51.78	46.99	48.18	46.68	43.63	45.25	52.69	50.95	48.40	45.64	47.45
22	47.92	51.80	46.33	45.27	46.86	43.84	45.30	53.47	49.85	47.80	47.37	48.82
23	49.94	51.85	46.31	45.51	46.89	44.04	45.20	53.10	49.67	47.50	47.51	49.33
24	47.56	51.87	46.07	48.16	47.05	44.61	45.09	52.04	49.49	47.20	47.56	49.54
25	50.37	51.91	45.87	48.07	47.02	45.18	45.04	51.57	49.25	47.70	47.96	49.65
26	48.67	52.15	45.78	48.30	44.35	45.33	45.18	50.96	49.24	48.15	46.88	49.74
27	47.76	49.52	46.13	48.32	44.49	45.72	45.91	50.32	51.01	48.80	46.60	49.80
28	48.20	47.06	48.97	48.00	47.18	46.19	47.30	50.14	50.83	49.49	45.80	49.92
29	48.19	51.20	49.20	45.03	---	46.72	48.31	50.41	50.73	49.27	47.03	50.02
30	46.93	50.35	49.27	45.10	---	47.33	48.61	50.23	51.76	48.96	48.04	50.00
31	47.17	---	48.92	47.89	---	48.76	---	49.96	---	48.01	47.79	---
MEAN	48.64	50.89	47.81	47.72	46.40	44.84	45.90	50.55	51.53	50.44	47.53	48.24
MAX	51.48	52.72	50.91	49.57	48.09	48.76	49.10	53.47	54.46	53.65	49.49	50.02
MIN	46.58	46.90	45.78	45.03	44.35	43.55	44.99	47.65	49.24	47.20	45.57	45.52

WTR YR 1978 MEAN 48.38 MAX 54.46 MIN 43.55

NOTE.--Add 1,700 ft to obtain elevation above mean sea level.

12313500 BALL CREEK NEAR BONNERS FERRY, ID

LOCATION.--Lat 48°47'40", long 116°24'54", in SW¼NW¼SW¼ sec.24, T.63 N., R.1 W., Boundary County, Hydrologic Unit 17010104, on right bank 600 ft (183 m) above county road bridge, 0.5 mi (0.8 km) upstream from mouth, and 8.2 mi (13.2 km) northwest of Bonners Ferry.

DRAINAGE AREA.--26.6 mi² (68.9 km²).

PERIOD OF RECORD.--June to September 1928, April to August 1929, April to September 1930, March to September 1931-34, September 1971 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,820 ft (555 m), from topographic map. June 1928 to September 1934 nonrecording gage at site 30 ft (9 m) downstream at same datum.

REMARKS.--Records good except those for winter period, which are fair. Diversion above station varies from 10 ft³/s (0.28 m³/s) during high stages to approximately 50 percent of flow during July to September.

AVERAGE DISCHARGE.--7 years, 61.2 ft³/s (1.73 m³/s), 31.24 in/yr (793 mm/yr), 44,340 acre-ft/yr (54.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,180 ft³/s (61.7 m³/s) June 17, 1974, gage height 7.27 ft (2.22 m); minimum discharge observed, 0.95 ft³/s (26.9 dm³/s) Aug. 23, 24, 1977; minimum gage height, 2.61 ft (0.796 m) Sept. 12-19, 1973.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 300 ft³/s (8.50 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Nov. 26	0845	(ice jam)		*6.08	1.853	June 5	1900	*759	21.5	6.06	1.847
May 22	0400	696	19.7	5.98	1.823						

Minimumdischarge, 2.7 ft³/s (76.5 dm³/s) Jan. 30, gage height, 3.18 ft (0.969 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1 to Mar. 10, May 14-25; stage-discharge relation affected by ice Nov. 19-29, Dec. 7-12, Dec. 20 to Jan. 13, Jan. 31 to Feb. 3, Feb. 13, Mar. 2-5)

3.1	3.0	4.0	53
3.2	5.5	4.4	108
3.4	12.5	4.8	195
3.6	23.0	5.3	365
3.8	36.0	5.8	640

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	14	19	8.0	5.0	7.1	74	146	153	86	17	8.3
2	11	37	19	7.8	5.2	6.0	68	172	191	77	16	6.8
3	10	24	23	7.8	5.4	6.2	63	171	267	73	15	5.9
4	9.8	21	20	8.1	5.5	6.6	60	165	373	70	14	5.3
5	9.6	20	18	8.6	5.5	6.8	58	146	510	67	13	5.5
6	9.2	20	17	9.4	5.5	7.0	54	131	519	63	11	6.6
7	9.0	20	14	9.9	5.8	7.0	53	128	515	67	10	7.0
8	9.1	14	13	9.8	5.8	8.4	52	122	468	61	9.0	7.7
9	9.9	18	12	9.5	5.8	9.4	50	167	342	58	8.6	9.1
10	8.7	18	12	9.2	6.1	9.5	51	238	247	55	8.0	7.2
11	8.3	18	13	9.2	5.5	10	56	204	203	50	7.4	6.5
12	8.3	18	14	9.0	5.8	11	55	177	186	46	8.2	6.4
13	9.8	18	17	9.0	5.8	11	54	169	216	43	9.0	6.4
14	9.9	18	19	9.0	5.8	11	53	226	198	40	9.2	6.1
15	9.4	18	22	9.0	5.8	10	53	318	187	37	8.7	6.1
16	9.3	16	20	8.4	5.8	12	52	275	162	36	13	7.3
17	8.9	14	18	8.6	6.1	12	54	241	156	36	11	6.2
18	8.3	13	16	8.6	6.4	13	48	244	167	41	9.4	5.9
19	8.3	11	14	9.0	6.1	16	49	276	166	38	8.5	5.6
20	8.3	10	13	8.6	6.1	20	59	314	156	33	11	5.3
21	8.3	10	12	8.3	6.1	24	59	420	160	32	9.6	5.5
22	8.1	11	12	8.3	6.7	29	57	419	156	30	8.6	12
23	7.9	11	11	8.0	6.7	32	56	232	143	29	8.3	18
24	8.3	12	10	8.3	6.7	43	54	178	131	26	8.0	17
25	11	12	9.0	7.7	7.7	41	55	172	124	25	7.4	13
26	9.9	13	8.0	7.1	7.7	43	70	154	113	23	7.3	11
27	9.3	14	7.8	6.4	7.7	48	102	146	105	24	6.7	9.8
28	9.0	16	8.4	6.1	7.7	50	133	157	99	22	6.2	9.7
29	11	18	8.8	6.1	---	57	140	165	98	20	5.8	9.5
30	13	19	8.6	5.6	---	70	142	150	89	19	5.6	8.7
31	12	---	8.3	5.2	---	83	---	146	---	17	6.8	---
TOTAL	293.9	496	436.9	253.8	171.8	720.0	1984	6369	6600	1344	297.3	245.4
MEAN	9.48	16.5	14.1	8.19	6.14	23.2	66.1	205	220	43.4	9.59	8.18
MAX	13	37	23	9.9	7.7	83	142	420	519	86	17	18
MIN	7.9	10	7.8	5.2	5.0	6.0	48	122	89	17	5.6	5.3
CFSM	.36	.62	.53	.31	.23	.87	2.49	7.71	8.27	1.63	.36	.31
IN.	.41	.69	.61	.35	.24	1.01	2.77	8.91	9.23	1.88	.42	.34
AC-FT	583	984	867	503	341	1430	3940	12630	13090	2670	590	487

CAL YR 1977 TOTAL 7846.4 MEAN 21.5 MAX 152 MIN 1.0 CFSM .81 IN 10.97 AC-FT 15560
WTR YR 1978 TOTAL 19212.1 MEAN 52.6 MAX 519 MIN 5.0 CFSM 1.98 IN 26.87 AC-FT 38110

12314000 KOOTENAI RIVER AT KLOCKMANN RANCH, NEAR BONNERS FERRY, ID

LOCATION.--Lat 48°47'38", long 116°22'51", in SE¼NW¼SE¼ sec.19, T.63 N., R.1 E., Boundary County, Hydrologic Unit 17010104, on right bank 0.3 mi (0.5 km) downstream from dike of drainage district No. 5, 8 mi (12.9 km) north of Bonners Ferry, and at mile 139.7 (224.2 km).

DRAINAGE AREA.--13,300 mi² (34,450 km²), approximately.

PERIOD OF RECORD.--May to July, September to November 1928, April to September, December 1929, April 1930 to current year (elevations only, fragmentary prior to April 1930).

GAGE.--Water-stage recorder. Datum of gage is 1,700.00 ft (518.1 m) Topographic Division datum of 1928. Gage readings have been reduced to elevations of that datum. National Geodetic Vertical Datum of 1929 is about 0.03 ft (0.009 m) higher. Prior to Sept. 12, 1928, several nonrecording gages within 300 ft (91.4 m) at different datums.

REMARKS.--Elevations affected by backwater from Kootenay Lake. No drainage district dike failed during year. Flow regulated by Libby Dam since Mar. 21, 1972.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,776.41 ft (541.450 m) June 7, 1961; minimum, 1,738.76 ft (529.974 m) Apr. 1, 1944.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,753.28 ft (534.400 m) June 10; minimum, 1,740.87 ft (530.617 m) Mar. 19.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48.63	48.85	48.67	44.99	45.90	45.01	46.28	46.09	48.21	50.52	46.95	46.16
2	46.46	49.68	48.87	44.80	45.98	45.00	45.54	46.60	47.99	50.69	46.79	46.22
3	46.38	50.08	47.90	47.45	45.99	43.23	44.76	47.26	48.71	50.97	46.66	45.12
4	48.76	50.20	46.31	47.70	45.99	42.69	44.17	47.27	49.64	51.23	46.61	45.06
5	47.14	49.92	46.19	47.18	43.85	42.32	43.71	46.70	50.45	51.24	46.64	45.10
6	47.32	48.32	46.99	47.26	43.69	42.18	43.50	46.06	51.16	51.22	46.64	46.76
7	48.00	49.90	46.37	46.45	45.31	42.05	43.20	45.62	51.88	51.53	46.64	47.54
8	48.05	49.70	45.76	45.07	45.26	41.97	42.92	45.45	51.88	50.89	46.55	47.59
9	46.50	48.50	48.12	45.12	45.24	41.96	42.72	45.61	52.51	50.37	46.32	47.80
10	45.88	49.70	48.36	47.06	45.24	41.90	42.56	47.05	52.69	49.06	47.36	47.81
11	46.44	49.82	46.20	47.23	45.08	41.76	42.64	48.11	51.19	49.90	47.45	47.38
12	46.90	48.80	46.34	47.32	43.40	41.65	42.74	47.95	50.31	50.06	47.37	46.32
13	48.00	45.47	47.05	47.31	43.24	41.55	42.63	47.23	50.91	49.91	46.11	46.42
14	48.13	45.86	47.25	47.03	44.79	41.48	42.48	47.33	51.61	49.74	44.71	46.26
15	47.83	47.32	46.63	45.06	44.37	41.38	42.32	49.24	51.47	49.59	44.98	46.16
16	46.08	47.35	46.50	44.89	44.86	41.29	42.20	50.74	51.21	48.85	45.57	46.01
17	46.12	47.46	47.27	46.09	44.79	41.21	42.15	50.36	50.38	48.01	44.73	44.91
18	47.02	49.08	46.18	46.61	44.21	41.15	42.11	49.93	49.38	49.40	45.74	44.75
19	46.21	49.63	45.41	46.71	42.92	40.91	42.01	49.76	49.36	49.50	45.91	45.43
20	49.10	49.52	45.72	46.71	42.74	40.92	42.08	49.95	50.24	49.34	44.79	45.81
21	49.44	49.64	45.94	46.57	44.41	40.99	42.30	50.45	49.82	47.59	44.71	45.85
22	46.70	49.65	45.54	44.44	44.63	41.10	42.38	51.21	48.96	46.58	45.77	46.76
23	48.25	49.69	45.52	44.33	44.67	41.23	42.25	51.02	48.81	46.22	45.85	47.31
24	46.27	49.71	45.30	46.17	44.80	41.67	42.10	50.11	48.64	45.98	45.89	47.53
25	48.36	49.73	45.12	46.09	44.95	42.33	42.04	49.60	48.42	46.16	46.15	47.70
26	47.25	49.91	44.99	46.24	42.88	42.52	42.19	49.15	48.30	46.49	45.64	47.83
27	46.59	48.39	44.99	46.31	42.70	42.87	42.97	48.60	49.43	46.97	45.36	47.94
28	46.86	46.19	47.01	46.20	44.75	43.32	44.36	48.42	49.49	47.61	44.80	48.10
29	46.83	48.86	47.23	44.06	---	43.88	45.51	48.62	49.23	47.67	45.47	48.21
30	46.09	48.68	47.34	43.87	---	44.46	45.93	48.49	50.12	47.37	46.18	48.19
31	46.04	---	47.21	45.76	---	45.71	---	48.16	---	46.56	46.20	---
MEAN	47.22	48.87	46.61	46.10	44.52	42.31	43.16	48.33	50.08	48.94	46.02	46.67
MAX	49.44	50.20	48.87	47.70	45.99	45.71	46.28	51.21	52.69	51.53	47.45	48.21
MIN	45.88	45.86	44.99	43.87	42.70	40.91	42.01	45.45	47.99	45.98	44.71	44.75

WTR YR 1978 MEAN 46.58 MAX 52.69 MIN 40.91

NOTE.--Add 1,700 ft to obtain elevation above mean sea level.

12316800 MISSION CREEK NEAR COPELAND, ID

LOCATION.--Lat 48°55'54", long 116°20'00", in SW¼NE¼NE¼ sec.4, T.64 N., R.1 E., Boundary County, Hydrologic Unit 17010104, on left bank 0.1 mi (0.2 km) upstream from bridge crossing, 4 mi (6.4 km) northeast of Copeland, at mile 6.0 (9.7 km), and 17 mi (27.4 km) north of Bonners Ferry.

DRAINAGE AREA.--23 mi² (60 km²), approximately.

PERIOD OF RECORD.--September 1958 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,814 ft (857 m).

REMARKS.--High flow record good, low flow poor. No regulation or diversion above station.

AVERAGE DISCHARGE.--20 years, 37.2 ft³/s (1.05 m³/s), 21.96 in/yr (558 mm/yr), 26,950 acre-ft/yr (33.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 528 ft³/s (15.0 m³/s) May 26, 1961, gage height, 5.52 ft (1.682 m); from rating curve extended above 250 ft³/s on basis of indirect measurement of peak flow; minimum daily, 1.3 ft³/s (36.8 dm³/s) Dec. 7-11, 1972.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 170 ft³/s (4.81 m³/s) and maximum (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft³/s)	(m³/s)	(ft)	(m)	Date	Time	(ft³/s)	(m³/s)	(ft)	(m)
May 3	0130	203	5.75	3.84	1.170	May 15	2015	*284	8.04	*4.25	1.295
May 9	2215	226	6.40	3.96	1.207	June 5	2100	172	4.87	3.67	1.119

Minimum recorded, 2.1 ft³/s (0.059 m³/s) Feb. 13 but may have been less during period of ice effect Feb. 13-15.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 18-19, Nov. 21 to Jan. 2, Feb. 13-15, Mar. 3-6, Mar. 15)

1.8	2.1	2.5	27
1.9	3.4	2.8	48
2.0	5.3	3.1	78
2.1	8.1	3.6	148
2.3	16	4.3	280

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.1	6.1	5.7	3.7	3.6	4.5	73	169	116	26	8.4	6.7
2	5.0	15	5.9	3.4	3.8	4.2	70	180	116	25	8.1	6.1
3	4.8	8.5	6.0	3.6	3.8	3.6	60	184	129	25	7.8	5.6
4	4.9	6.7	5.8	4.1	3.8	3.7	53	153	149	25	7.5	5.4
5	4.7	6.1	5.4	4.6	3.8	3.9	51	130	162	24	7.1	5.5
6	4.7	5.6	5.1	5.1	4.0	4.2	46	116	162	23	6.8	5.7
7	5.1	5.9	4.8	5.3	4.0	4.5	44	111	146	22	6.4	6.0
8	5.1	4.7	4.6	5.4	4.2	5.3	45	112	131	20	6.1	6.8
9	5.0	5.1	4.6	5.3	3.8	6.4	44	149	122	20	5.9	6.4
10	4.7	5.3	4.7	5.2	3.8	6.1	47	198	107	20	5.6	6.1
11	4.7	5.1	4.9	5.0	3.8	5.9	54	187	91	19	5.4	6.3
12	4.7	5.6	5.1	4.9	3.8	6.3	53	162	80	19	5.4	5.9
13	5.0	6.1	5.4	4.7	3.6	6.2	50	146	78	18	5.5	6.1
14	4.8	7.0	5.7	4.6	3.5	6.0	47	180	76	17	5.5	5.6
15	4.6	6.3	6.0	4.5	3.6	5.8	45	261	70	17	5.6	6.1
16	4.5	5.7	6.2	4.5	3.8	6.1	46	270	67	16	5.7	6.1
17	4.4	5.1	6.1	4.5	3.8	6.2	47	228	61	17	5.8	5.4
18	4.3	4.8	6.0	4.4	3.8	7.2	45	212	56	18	5.6	5.1
19	4.3	4.3	5.9	4.3	3.8	7.9	48	208	56	16	5.7	5.0
20	4.3	3.6	5.8	4.2	4.0	8.7	63	221	50	15	6.0	4.9
21	4.2	3.4	5.6	4.0	4.2	12	69	240	47	14	5.6	5.3
22	4.2	3.3	5.4	3.9	4.2	16	64	247	44	13	6.0	6.1
23	4.2	3.5	5.1	3.8	4.5	20	60	206	41	13	6.6	6.6
24	4.2	3.7	4.9	3.8	4.4	32	57	191	39	12	6.2	6.1
25	4.5	3.9	4.7	3.6	4.2	33	58	165	37	11	6.0	5.3
26	4.5	4.1	4.6	3.6	4.4	40	79	140	35	11	5.9	5.1
27	4.5	4.3	4.4	3.6	4.4	45	113	124	32	12	5.8	5.0
28	4.4	4.7	4.3	3.6	4.5	46	148	125	30	10	5.6	5.3
29	4.7	5.0	4.2	3.6	---	54	163	145	28	9.8	5.4	5.1
30	6.1	5.3	4.1	3.6	---	67	167	137	27	9.2	5.4	4.9
31	6.4	---	4.0	3.6	---	80	---	126	---	8.8	5.8	---
TOTAL	146.6	163.8	161.0	132.8	110.9	559.7	2009	5425	2385	525.8	190.2	171.6
MEAN	4.73	5.46	5.19	4.28	3.96	18.1	67.0	175	79.5	17.0	6.14	5.72
MAX	6.4	15	6.2	5.4	4.5	80	167	270	162	26	8.4	6.8
MIN	4.2	3.3	4.0	3.4	3.5	3.6	44	111	27	8.8	5.4	4.9
CFSM	.21	.24	.23	.19	.17	.79	2.91	7.61	3.46	.74	.27	.25
IN.	.24	.26	.26	.21	.18	.91	3.25	8.77	3.86	.85	.31	.28
AC-FT	291	325	319	263	220	1110	3980	10760	4730	1040	377	340

CAL YR 1977 TOTAL 4175.9 MEAN 11.4 MAX 74 MIN 2.8 CFSM .50 IN 6.75 AC-FT 8280
WTR YR 1978 TOTAL 11981.4 MEAN 32.8 MAX 270 MIN 3.3 CFSM 1.43 IN 19.38 AC-FT 23770

12318500 KOOTENAI RIVER NEAR COPELAND, ID
(International gaging station)

LOCATION (REVISED).--Lat 48°54'18", long 116°24'07", in NE¼NW¼NE¼ sec.13, T.64 N., R.1 W., Boundary County, Hydrologic Unit 17010104, at the Copeland bridge, 200 ft (61 m) upstream from Mission Creek, 0.7 mi (1.1 km) northwest of Copeland, 1 mi (1.6 km) upstream from cableway and discontinued gage shelter, and at mile 124.2 (199.8 km).

DRAINAGE AREA.--13,400 mi^2 (34,710 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1927 to current year (elevation record only prior to May 1929). Published as "at Copeland" 1927-29. April 1925 to September 1927 (gage heights only) in reports of Water Survey of Canada, Department of Energy, Mines and Resources.

GAGE.--Nonrecording gage, wire weight. Datum of gage is 1,700.00 ft (518.160 m) Topographic Division datum of 1928. Gage readings have been reduced to elevations of that datum. National Geodetic Vertical Datum of 1929 is about 0.04 ft (0.012 m) higher. Prior to Sept. 30, 1975, water-stage recorder located in gage shelter 1 mi (1.6 km) downstream at same datum. October 1927 to Nov. 20, 1929, nonrecording or recording gage at site 0.2 mi (0.3 km) downstream; datum 40.77 ft (12.427 m) higher prior to Apr. 18, 1929.

REMARKS.--Records fair. Stage-discharge relation affected by backwater from Kootenay Lake. No drainage district dike failed during year. Discharge computed from slope and conveyance of the reach between stations at Klockmann Ranch and at Porthill, and discharge measurements at station near Copeland. Flow regulated by Libby Dam started on Mar. 21, 1972.

COOPERATION.--This station is maintained by the United States under agreement with Canada. Three discharge measurements per year furnished by Water Survey of Canada.

AVERAGE DISCHARGE.--49 years (water years 1930-78), 15,640 ft^3/s (443 m^3/s), 15.85 in/yr (402.6 mm/yr); 11,330,000 acre-ft/yr (13,970 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 124,000 ft^3/s (3,510 m^3/s) May 30, 1948; maximum elevation, 1,772.55 ft (540.273 m) June 6, 1961; minimum daily discharge, 1,350 ft^3/s (38.2 m^3/s) Feb. 8, 1936; minimum elevation, 1,738.52 ft (529.901 m) Apr. 2, 3, 1944.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 26,900 ft^3/s (762 m^3/s) May 16; maximum observed elevation, 1,751.34 ft (533.808 m) June 10; minimum daily discharge, 2,580 ft^3/s (73.1 m^3/s) Jan. 1; minimum observed elevation, 1,740.26 ft (530.431 m) Mar. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16400	19100	16900	2580	13400	13400	18600	16900	15700	18800	12700	11600
2	7640	20700	17200	4060	13600	13500	15600	18100	15000	19000	12600	10800
3	8600	21800	12100	16800	13700	7170	13500	19400	17300	20600	12400	5500
4	19100	21900	6450	17000	13300	6050	12100	18900	19500	21400	12300	5220
5	10500	20400	6990	14300	4400	4920	11000	17100	21100	21500	12300	5430
6	12700	14600	10800	14300	4970	4770	10400	15200	22100	21400	12300	12800
7	15500	21400	7870	10300	12200	4710	9700	13900	24000	22600	12300	14800
8	15000	19700	5340	3820	11500	4720	9020	13400	22500	19500	12000	14700
9	7920	15100	16500	5500	11500	4950	8660	13700	24300	18000	11400	15000
10	4880	20800	15400	14300	11700	4860	8350	18000	23600	12900	15500	14900
11	8630	20800	5190	14200	11100	4510	8670	20600	17100	16500	15800	13000
12	11100	16100	7200	14300	4580	4460	9110	19400	13600	17600	15800	9480
13	15100	4080	9730	14100	5070	4480	8920	17200	16800	17400	10800	10300
14	15000	6700	10700	12900	11600	4260	8710	17400	19300	17100	5730	10300
15	13300	12700	7280	3810	9870	4170	8420	23300	18800	16700	7480	10500
16	4480	12700	7710	5160	11800	4210	8350	26900	18100	13900	9820	9830
17	5940	12700	11300	13700	11500	4090	8310	24600	15000	10600	5730	5460
18	10100	19700	6390	13700	9680	4110	8270	23000	11300	17100	10200	5350
19	5860	20200	5920	13600	4670	3350	8080	22100	11600	17300	10400	8890
20	19200	19500	5660	13800	5040	3790	6360	22300	16300	16800	5400	10100
21	18600	19900	7470	13200	11800	4250	8990	23300	14300	9720	5380	10300
22	6070	19800	5270	3940	12000	4770	9180	25000	10800	6200	10300	13700
23	15100	20000	5760	5150	12100	5270	8860	23400	10400	5770	11000	14900
24	5790	20100	4930	13400	12400	6870	8500	20400	9790	5610	11000	14900
25	16100	20100	4770	12800	12700	8880	8380	19200	9220	7280	11800	14900
26	10500	20800	4720	13600	4990	9190	8770	17500	9320	8960	9190	14900
27	7630	13200	5350	13600	5350	10000	10700	16000	15200	11300	8260	14800
28	9230	4650	14200	13200	13100	11200	14200	15600	14900	14100	6070	14800
29	8970	18900	14400	4390	---	12800	16500	16200	14400	13900	9320	14700
30	4570	16200	14700	5280	---	14100	16900	15900	17300	13300	11900	14700
31	5510	---	13600	13300	---	17800	---	15300	---	10600	11900	---
TOTAL	335020	514330	287840	334090	279620	215610	313110	589200	488630	463440	329080	346560
MEAN	10810	17140	9285	10780	9986	6955	10440	19010	16290	14950	10620	11550
MAX	19200	21900	17200	17000	13700	17800	18600	26900	24300	22600	15800	15000
MIN	4480	4080	4720	2580	4400	3350	8080	13400	9220	5610	5380	5220
AC-FT	664500	1020000	570900	662700	554600	427700	621100	1169000	969200	919200	652700	687400

CAL YR 1977 TOTAL 3889260 MEAN 10660 MAX 23200 MIN 3750 AC-FT 7714000
WTR YR 1978 TOTAL 4496530 MEAN 12320 MAX 26900 MIN 2580 AC-FT 8919000

12318500 KOOTENAI RIVER NEAR COPELAND, ID--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47.50	47.27	47.20	44.54	44.92	43.46	44.06	44.10	46.86	49.04	45.78	45.44
2	46.64	47.40	47.24	44.46	44.95	43.56	43.54	44.55	46.88	49.30	45.92	45.31
3	45.78	48.25	47.01	46.13	44.94	42.41	43.00	45.16	47.36	49.44	45.74	44.92
4	46.34	48.35	45.78	46.21	44.78	42.13	42.58	45.32	48.10	49.62	45.60	44.69
5	46.49	47.83	45.68	46.28	43.32	41.81	42.23	44.86	48.84	49.60	45.66	44.64
6	46.16	46.77	46.15	46.35	43.27	41.70	42.16	44.45	49.58	49.62	45.55	45.86
7	46.08	47.45	45.71	45.77	44.35	41.55	41.98	44.26	50.13	49.70	45.74	46.22
8	46.76	47.68	45.37	44.71	44.28	41.50	41.69	43.96	50.44	49.89	45.52	46.28
9	45.79	46.81	46.86	44.58	44.25	41.45	41.54	44.18	51.07	49.34	45.40	46.44
10	45.52	47.94	47.18	44.66	44.21	41.34	41.43	45.30	51.33	47.60	46.22	46.52
11	45.94	48.04	45.79	46.24	44.22	41.20	41.36	46.06	50.22	48.88	46.08	46.51
12	46.06	47.89	45.44	46.40	42.78	41.07	41.52	46.02	49.50	49.12	46.02	45.63
13	46.89	45.46	46.34	46.54	42.70	40.99	41.39	45.50	50.04	48.88	45.23	45.58
14	47.04	45.32	46.30	46.20	43.84	40.92	41.20	45.54	50.52	48.46	44.50	45.41
15	46.84	46.62	46.07	45.91	43.50	40.74	41.16	46.94	50.39	48.46	44.38	45.17
16	45.51	46.50	45.92	44.48	43.77	40.70	41.06	48.46	49.98	47.55	44.84	44.88
17	45.74	46.52	46.77	45.77	43.73	40.60	41.50	48.22	49.57	47.24	44.36	44.38
18	46.48	47.40	45.79	45.86	43.34	40.48	41.48	47.84	48.66	48.37	44.95	44.39
19	45.78	47.78	45.36	45.81	42.45	40.40	40.92	47.80	48.65	48.36	45.22	44.71
20	47.59	47.71	45.28	45.74	42.22	40.36	40.96	48.04	49.24	47.91	44.42	44.94
21	48.10	47.88	45.52	45.67	43.31	40.31	41.01	48.57	48.97	47.04	44.41	44.96
22	46.39	47.86	45.15	44.06	43.48	40.27	41.12	49.26	48.32	46.16	44.96	45.52
23	47.53	47.97	45.16	43.92	43.52	40.42	41.05	49.12	48.14	45.82	45.06	45.96
24	45.70	47.84	44.94	45.23	43.52	40.48	40.92	48.37	48.04	45.62	45.13	46.14
25	47.38	47.94	44.68	45.16	43.55	41.08	40.94	48.15	47.86	45.70	45.17	46.35
26	46.48	47.92	44.62	45.34	42.50	41.14	41.00	47.78	47.70	45.86	44.96	46.56
27	46.14	47.48	44.54	45.24	42.15	41.20	41.46	47.32	48.38	46.24	44.77	46.68
28	46.41	45.76	46.02	45.44	42.55	41.38	42.52	47.16	48.22	46.46	44.34	46.90
29	46.22	47.09	46.28	43.55	---	42.10	43.50	47.31	47.85	46.55	44.62	47.02
30	45.71	47.24	46.30	43.39	---	42.54	43.94	47.20	48.86	46.19	45.25	47.50
31	45.63	---	46.46	44.76	---	43.53	---	46.90	---	45.62	45.34	---
MEAN	46.41	47.35	45.92	45.31	43.59	41.38	41.81	46.57	48.99	47.86	45.20	45.72
MAX	48.10	48.35	47.24	46.54	44.95	43.56	44.06	49.26	51.33	49.89	46.22	47.50
MIN	45.51	45.32	44.54	43.39	42.15	40.27	40.92	43.96	46.86	45.62	44.34	44.38

WTR YR 1978 MEAN 45.52 MAX 51.33 MIN 40.27

NOTE.--Add 1,700 ft to obtain elevation above mean sea level.

12318500 KOOTENAI RIVER NEAR COPELAND, ID--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: May 1966 to current year.
SUSPENDED SEDIMENT DISCHARGE: May 1966 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum daily, 24.0°C July 28-30, 1975; minimum daily, 0.0°C on several days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily, 740 mg/L May 30, 1966; minimum daily, 1 mg/L on many days since 1968.
SEDIMENT LOADS: Maximum daily, 155,000 tons (140,600 tonnes) May 30, 1966; minimum daily, 5.1 tons (4.6 tonnes) Jan. 31, 1972.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum daily, 19°C July 29-31, Aug. 4-6; minimum daily, 1.0°C Jan. 1-4.
SEDIMENT CONCENTRATIONS: Maximum daily, 40 mg/L May 17; minimum daily, 1 mg/L Feb. 11.
SEDIMENT LOADS: Maximum daily, 2,690 tons (2,440 tonnes) May 16; minimum daily, 24 tons (22 tonnes) Oct. 16.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)
OCT											
03...	0830	9760	238	--	6.5	10.5	--	--	--	--	--
27...	1000	9170	235	7.4	.5	8.0	1	--	11.1	99	K7
NOV											
23...	1030	19600	230	*7.5	-2.0	5.5	2	--	11.6	98	20
DEC											
20...	1045	5960	174	7.5	4.0	4.0	2	--	11.9	96	24
JAN											
04...	1250	4460	231	--	5.0	3.5	--	--	--	--	--
30...	1000	4190	241	7.5	-4.0	2.0	2	--	13.2	102	K2
FEB											
22...	1030	12600	221	7.9	4.5	3.0	2	--	8.2	65	K4
MAR											
28...	1015	11200	138	6.6	7.5	6.5	10	--	8.2	71	K15
APR											
25...	1100	11500	147	6.5	19.0	9.5	2	--	11.8	110	--
MAY											
30...	1000	14200	125	6.6	10.0	10.0	--	1.9	8.6	81	27
JUN											
27...	1000	15800	109	7.6	20.5	17.0	--	2.7	9.4	103	K21
JUL											
27...	1000	12500	187	8.1	21.5	16.5	--	1.1	8.3	93	K8
AUG											
30...	1000	13400	*202	8.3	17.0	15.5	--	2.0	9.2	97	K11
SEP											
27...	1200	15000	204	8.1	19.5	15.5	--	.60	9.8	103	28

DATE	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)
OCT											
03...	--	--	--	--	--	--	--	--	--	--	--
27...	K11	140	29	36	11	3.7	6	.1	.7	130	0
NOV											
23...	--	130	23	34	9.8	2.6	4	.1	.6	*130	*0
DEC											
20...	K6	99	17	27	7.7	2.3	5	.1	.7	100	0
JAN											
04...	--	--	--	--	--	--	--	--	--	--	--
30...	K6	130	22	35	10	2.4	4	.1	.6	130	0
FEB											
22...	K12	120	26	34	9.6	2.5	4	.1	.6	120	0
MAR											
28...	45	71	11	19	5.7	1.8	5	.1	.7	73	0
APR											
25...	K7	73	9	20	5.7	2.0	6	.1	.6	78	0
MAY											
30...	K13	59	11	16	4.6	1.9	7	.1	.5	59	0
JUN											
27...	26	72	0	20	5.2	2.2	6	.1	.6	93	0
JUL											
27...	52	95	13	26	7.2	2.1	5	.1	.7	100	0
AUG											
30...	K11	100	2	28	7.5	3.2	6	.1	.5	120	0
SEP											
27...	40	100	10	28	7.2	2.1	4	.1	.5	110	0

* Not a field determination.
K Results based on count outside ideal colony count range.

12318500 KOOTENAI RIVER NEAR COPELAND, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)
OCT											
03...	--	--	--	--	--	--	--	--	--	--	--
27...	110	24	3.1	.2	4.0	143	147	.19	3540	.00	--
NOV											
23...	107	19	3.0	.1	4.2	112	137	.15	5930	.10	.00
DEC											
20...	82	17	2.1	.1	6.2	105	112	.14	1690	.07	3.4
JAN											
09...	--	--	--	--	--	--	--	--	--	--	--
30...	110	23	2.5	.1	4.3	130	142	.18	1470	.08	.01
FEB											
22...	98	19	2.5	.1	4.6	133	132	.18	4520	.05	.01
MAR											
28...	60	8.0	1.4	.0	8.3	74	91	.10	2240	.14	.01
APR											
25...	64	7.8	1.6	.1	8.9	80	85	.11	2480	.03	.01
MAY											
30...	49	9.3	1.0	.1	8.2	67	70	.09	2570	.02	.03
JUN											
27...	76	8.4	1.4	.1	6.4	80	90	.11	3410	.01	.00
JUL											
27...	82	15	1.5	.1	4.8	103	107	.14	3480	.02	.00
AUG											
30...	98	14	1.5	.1	5.2	110	119	.15	4100	.02	.01
SEP											
27...	90	15	1.8	.1	4.6	112	114	.15	4540	.05	.00

DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
OCT											
03...	--	--	--	--	--	--	--	--	--	--	--
27...	--	.09	--	--	.09	.40	.00	--	--	--	--
NOV											
23...	--	--	--	--	--	--	.01	.01	1.1	--	--
DEC											
20...	--	--	--	.04	--	--	.00	.00	--	2.3	.5
JAN											
09...	--	--	--	--	--	--	--	--	--	--	--
30...	1.4	1.4	1.4	.05	1.5	6.6	.02	.01	.9	--	--
FEB											
22...	3.5	3.5	3.5	.04	3.6	16	.01	.01	1.7	--	--
MAR											
28...	.42	.43	.20	.23	.57	2.5	.02	.00	--	4.0	.3
APR											
25...	.27	.28	.05	.23	.31	1.4	.01	.01	2.3	--	--
MAY											
30...	--	--	--	.17	--	--	.00	.00	3.0	--	--
JUN											
27...	.60	.60	.42	.18	.61	2.7	.02	.01	--	2.4	.4
JUL											
27...	.35	.35	.05	.30	.37	1.6	.00	.00	1.7	--	--
AUG											
30...	.08	.09	.04	.05	.11	.49	.02	.01	1.6	--	--
SEP											
27...	.30	.30	.00	.31	.35	1.6	.01	.00	--	2.0	.1

12318500 KOOTENAI RIVER NEAR COPELAND, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)
DEC 20...	1	0	1	0	0	0	8	7	1	0
MAR 28...	1	0	1	0	0	0	8	3	5	10
JUN 27...	1	0	1	300	100	200	4	0	5	0
SEP 27...	0	--	1	0	0	100	12	11	1	0

DATE	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)
DEC 20...	0	0	0	0	0	4	4	0	210	--
MAR 28...	10	0	0	0	0	12	9	3	500	--
JUN 27...	0	0	3	3	0	8	7	1	610	600
SEP 27...	0	0	0	0	2	2	2	0	90	80

DATE	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)
DEC 20...	30	28	15	13	30	20	10	.2	.2	.0
MAR 28...	50	82	50	32	20	0	20	.0	.0	.2
JUN 27...	10	32	16	16	20	10	10	.1	.1	.0
SEP 27...	10	140	120	6	10	10	0	.0	.0	.0

DATE	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, SUS-PENDED RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
DEC 20...	0	0	0	0	0	0	30	10	20
MAR 28...	0	0	0	1	1	0	40	30	10
JUN 27...	0	0	0	0	0	0	20	10	10
SEP 27...	0	0	0	0	0	0	10	10	0

12318500 KOOTENAI RIVER NEAR COPELAND, ID--Continued

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	ALDRIN, TOTAL (UG/L)	ATRAZINE, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DIAZINON, TOTAL (UG/L)
NOV 23...	1030	19600	ND	ND	ND	ND	ND	ND	ND
FEB 22...	1030	12600	ND	ND	ND	ND	ND	ND	ND
MAY 30...	1000	14200	ND	ND	ND	ND	ND	ND	ND
AUG 30...	1000	13800	ND	--	ND	ND	ND	ND	ND

DATE	DIELDRIN TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALATHION, TOTAL (UG/L)	METHOXYCHLOR, TOTAL (UG/L)	METHYL PARATHION, TOTAL (UG/L)
NOV 23...	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 22...	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY 30...	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 30...	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	METHYL TRITHION, TOTAL (UG/L)	PARATHION, TOTAL (UG/L)	SIMAZINE TOTAL COULSON COND. (UG/L)	TOXAPHENE, TOTAL (UG/L)	TOTAL TRITHION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
NOV 23...	ND	ND	ND	ND	ND	ND	ND	ND
FEB 22...	ND	ND	ND	ND	ND	ND	ND	ND
MAY 30...	ND	ND	ND	ND	ND	--	--	--
AUG 30...	ND	ND	--	ND	ND	--	--	--

ND Not detected.

12318500 KOOTENAI RIVER NEAR COPELAND, ID--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1977 TO JULY 1978

DATE	OCT 27,77	NOV 23,77	MAY 30,78	JUN 27,78	JUL 27,78
TIME	1000	1030	1015	1000	1000
TOTAL CELLS/ML	3100	580	1400	2000	530
DIVERSITY: DIVISION	1.0	1.1	0.6	0.0	0.3
.CLASS	1.0	1.1	0.6	0.0	0.3
..ORDER	1.4	1.3	0.8	0.1	0.5
...FAMILY	2.1	2.9	2.5	2.3	2.5
....GENUS	2.2	3.2	2.8	2.5	2.8

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...OOCYSTACEAE										
....ANKISTRODESMUS	*	0	--	-	--	-	--	-	14	3
...SCENEDESMACEAE										
....SCENEDESMUS	--	-	27	5	--	-	--	-	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	--	-	14	1	--	-	--	-
..ZYGNEMATALES										
...DESMIDIACEAE										
....CLOSTERIUM	--	-	--	-	--	-	--	-	14	3
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	42	1	14	2	43	3	23	1	14	3
....MELOSIRA	*	0	--	-	--	-	--	-	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	250	8	7	1	100	7	390#	20	43	8
....COCCONEIS	*	0	--	-	--	-	--	-	--	-
....RHOICOSPHENIA	--	-	--	-	14	1	--	-	--	-
...CYMBELLACEAE										
....CYMBELLA	*	0	74	13	29	2	230	11	72	14
....EPITHEMIA	*	0	--	-	--	-	--	-	--	-
...DIATOMACEAE										
....DIATOMA	--	-	54	9	360#	26	210	10	170#	32
...FRAGILARIACEAE										
....ASTERIONELLA	--	-	--	-	430#	32	46	2	--	-
....FRAGILARIA	84	3	120#	20	--	-	830#	41	110#	22
....HANNAEA	--	-	--	-	43	3	46	2	--	-
....SYNEDRA	84	3	81	14	14	1	--	-	43	8
...GOMPHONEMATACEAE										
....GOMPHONEMA	--	-	14	2	14	1	93	5	14	3
...NAVICULACEAE										
....NAVICULA	28	1	34	6	140	11	93	5	29	5
...NITZSCHIACEAE										
....NITZSCHIA	--	-	47	8	14	1	46	2	--	-
...TABELLARIACEAE										
....TABELLARIA	1200#	40	--	-	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)										
.CRYPTOPHYCEAE										
..CRYPTOMONIDALES										
...CRYPTOCHRYSIDACEAE										
....CHROOMONAS	--	-	20	3	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....ANACYSTIS	170	5	--	-	--	-	--	-	--	-
..HORMOGONALES										
...NOSTOCACEAE										
....CYLINDROSPERMUM	--	-	95#	16	--	-	--	-	--	-
...OSCILLATORIACEAE										
....OSCILLATORIA	1100#	36	--	-	140	11	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

12318500 KOOTENAI RIVER NEAR COPELAND, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	LENGTH OF EXPO-SURE (DAYS)	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)
DEC					
20...	27	1.18	.945	1.30	.000
APR					
25...	28	23.8	21.6	5.60	.530
JUL					
27...	30	5.59	4.72	5.79	1.11

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM
OCT						
27...	1000	2	50	90	100	--
NOV						
23...	1030	6	318	94	98	100
DEC						
20...	1045	4	64	98	100	--
JAN						
30...	1000	6	68	94	100	--
FEB						
22...	1030	6	204	98	100	--
MAR						
28...	1015	29	877	100	--	--
APR						
25...	1100	7	217	--	--	--
MAY						
30...	1000	8	307	--	--	--
JUN						
27...	1000	7	299	97	100	--
JUL						
27...	1000	8	270	--	--	--
AUG						
30...	1000	7	261	--	--	--
SEP						
27...	1200	6	243	--	--	--

12318500 KOOTENAI RIVER NEAR COPELAND, ID--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.0	8.0	5.0	1.0	4.0	3.0	---	10.0	11.0	16.0	17.0	16.0
2	12.0	8.0	5.0	1.0	4.0	3.0	6.0	10.0	9.0	16.0	17.0	16.0
3	12.0	7.0	6.0	1.0	4.0	3.0	6.0	10.0	10.0	16.0	18.0	16.0
4	---	7.0	6.0	1.0	5.0	3.0	6.0	8.0	11.0	15.0	19.0	16.0
5	12.0	7.0	5.0	2.0	5.0	3.0	6.0	7.0	13.0	15.0	19.0	16.0
6	12.0	6.0	5.0	2.0	5.0	3.0	6.0	7.0	13.0	15.0	19.0	16.0
7	10.0	---	5.0	2.0	5.0	3.0	6.0	7.0	12.0	15.0	17.0	16.0
8	10.0	8.0	3.0	4.0	5.0	3.0	6.0	7.0	12.0	15.0	17.0	17.0
9	10.0	8.0	2.0	4.0	5.0	4.0	5.0	7.0	12.0	15.0	18.0	17.0
10	9.0	7.0	2.0	4.0	6.0	4.0	5.0	10.0	11.0	15.0	16.0	17.0
11	9.0	7.0	3.0	4.0	5.0	4.0	6.0	7.0	11.0	16.0	16.0	16.0
12	9.0	8.0	3.0	4.0	5.0	5.0	6.0	10.0	11.0	14.0	16.0	16.0
13	9.0	8.0	4.0	4.0	4.0	5.0	6.0	10.0	12.0	14.0	16.0	16.0
14	9.0	8.0	4.0	4.0	3.0	5.0	6.0	11.0	12.0	14.0	18.0	17.0
15	9.0	8.0	5.0	4.0	3.0	4.0	7.0	9.0	12.0	15.0	18.0	17.0
16	9.0	8.0	5.0	4.0	3.0	4.0	7.0	8.0	11.0	15.0	18.0	16.0
17	9.0	7.0	5.0	4.0	4.0	5.0	7.0	7.0	11.0	15.0	16.0	16.0
18	10.0	7.0	4.0	4.0	4.0	4.0	7.0	7.0	11.0	15.0	14.0	16.0
19	10.0	6.0	4.0	4.0	5.0	4.0	8.0	8.0	12.0	15.0	14.0	14.0
20	8.0	5.0	4.0	4.0	6.0	4.0	8.0	8.0	12.0	13.0	14.0	12.0
21	8.0	5.0	3.0	4.0	5.0	4.0	8.0	8.0	12.0	13.0	14.0	12.0
22	8.0	5.0	3.0	5.0	5.0	5.0	8.0	9.0	12.0	13.0	14.0	12.0
23	7.0	5.0	3.0	3.0	4.0	7.0	8.0	8.0	12.0	15.0	15.0	12.0
24	7.0	5.0	2.0	3.0	3.0	7.0	6.0	8.0	12.0	17.0	15.0	12.0
25	7.0	5.0	2.0	3.0	---	7.0	8.0	9.0	12.0	17.0	14.0	12.0
26	7.0	6.0	2.0	4.0	---	7.0	8.0	10.0	14.0	18.0	14.0	12.0
27	6.0	6.0	2.0	4.0	---	7.0	9.0	11.0	14.0	18.0	14.0	12.0
28	6.0	6.0	2.0	3.0	---	7.0	9.0	11.0	15.0	18.0	14.0	11.0
29	6.0	6.0	2.0	4.0	---	8.0	9.0	10.0	15.0	19.0	14.0	12.0
30	7.0	5.0	2.0	4.0	---	8.0	10.0	7.0	16.0	19.0	15.0	12.0
31	7.0	---	2.0	4.0	---	9.0	---	7.0	---	19.0	15.0	---
MEAN	9.0	6.5	3.5	3.5	4.5	5.0	7.0	8.5	12.0	15.5	16.0	14.5

WTR YR 1978 MEAN 9.0 MAX 19.0 MIN 1.0

12318500 KOOTENAI RIVER NEAR COPELAND, ID--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	8	354	14	722	6	274	4	28	5	181	8	289
2	5	103	9	503	11	511	3	33	7	257	11	401
3	5	116	19	1120	6	196	6	272	6	222	6	116
4	9	464	12	710	4	70	7	321	5	180	4	65
5	3	85	12	661	5	94	8	309	5	59	3	40
6	4	137	7	276	7	204	12	463	5	67	2	26
7	5	209	8	462	5	106	7	195	5	165	3	38
8	6	243	5	266	4	58	5	52	8	248	3	38
9	3	64	13	530	6	267	4	59	9	279	3	40
10	4	53	8	449	6	249	2	77	3	95	4	52
11	2	47	10	562	4	56	4	153	1	30	4	49
12	3	90	13	565	7	136	5	193	4	49	5	60
13	7	285	7	77	7	184	6	228	4	55	3	36
14	6	243	10	181	19	549	7	244	6	188	4	46
15	4	144	10	343	17	334	3	31	4	107	4	45
16	2	24	5	171	16	333	2	28	5	159	5	57
17	2	32	8	274	17	519	6	222	6	186	5	55
18	3	82	8	426	12	207	7	259	4	105	3	33
19	2	32	8	436	13	208	6	220	5	63	4	36
20	6	311	7	369	5	76	4	149	6	82	3	31
21	8	402	6	322	5	101	6	214	7	223	4	46
22	5	82	6	321	7	100	8	85	8	259	6	77
23	6	245	8	432	8	124	13	181	8	261	7	100
24	5	78	4	217	8	106	6	217	9	301	9	167
25	11	478	4	217	4	52	5	173	8	274	12	288
26	6	170	6	337	3	38	5	184	5	67	13	323
27	3	62	7	249	4	58	6	220	3	43	12	324
28	5	100	7	88	9	345	7	249	4	141	14	423
29	4	97	10	510	8	311	7	83	---	---	13	449
30	5	62	5	219	6	238	5	71	---	---	14	533
31	10	149	---	---	5	184	7	251	---	---	23	1110
TOTAL	---	5043	---	12015	---	6288	---	5464	---	4346	---	5393

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	31	1560	14	639	11	466	11	558	7	240	6	188
2	33	1390	15	733	9	364	12	616	7	238	5	146
3	31	1130	21	1100	10	467	9	501	5	167	3	45
4	33	1080	20	1020	11	579	9	520	6	199	3	42
5	18	535	14	646	12	684	12	697	6	199	2	29
6	12	337	10	410	13	776	12	693	5	166	4	138
7	11	288	7	263	13	842	11	671	6	199	6	240
8	9	219	7	253	16	972	12	632	4	130	8	318
9	9	210	7	259	23	1510	7	340	6	185	7	283
10	9	203	13	632	18	1150	6	209	11	460	6	241
11	12	281	20	1110	9	416	12	535	13	555	5	175
12	9	221	17	890	5	184	9	428	10	427	4	102
13	7	169	13	604	9	408	7	329	6	175	4	111
14	6	141	11	517	11	573	9	416	4	62	4	111
15	6	136	14	881	10	508	8	361	4	81	5	142
16	8	180	37	2690	11	538	6	225	6	159	3	80
17	8	179	40	2660	4	162	6	172	5	77	4	59
18	6	134	25	1550	6	183	9	416	6	165	4	58
19	9	196	21	1250	12	376	11	514	5	140	4	96
20	11	248	18	1080	14	616	10	454	4	58	4	109
21	10	243	23	1450	9	347	4	105	3	44	3	83
22	11	273	30	2030	4	117	5	84	5	139	6	222
23	10	239	22	1390	5	140	9	140	5	148	7	282
24	7	161	16	881	2	53	4	61	7	208	8	322
25	6	136	14	726	5	124	3	59	6	191	6	241
26	5	118	10	472	5	126	5	121	4	99	5	201
27	9	260	11	475	7	287	6	183	3	67	6	240
28	19	728	11	463	6	241	7	266	4	66	8	320
29	32	1430	9	394	6	233	8	300	6	151	7	270
30	16	730	7	301	8	374	5	180	6	193	5	198
31	---	---	8	330	---	---	5	143	6	193	---	---
TOTAL	---	13155	---	28099	---	13816	---	10929	---	5581	---	5100

TOTAL LOAD FOR YEAR: 115229 TONS.

12321500 BOUNDARY CREEK NEAR PORTHILL, ID
(International gaging station)

LOCATION.--Lat 48°59'50", long 116°34'05", in SW¼NW¼SW¼ sec.11, T.65 N., R.2 W., Boundary County, Hydrologic Unit 17010104, on left bank near mouth of canyon, 0.2 mi (0.3 km) south of international boundary, 3 mi (4.8 km) west of Porthill, and at mile 3.5 (5.6 km).

DRAINAGE AREA.--97 mi² (251 km²), approximately.

PERIOD OF RECORD.--May 1928 to current year (no winter records 1929, 1930).

GAGE.--Water-stage recorder. Altitude of gage is 1,770 ft or 539.5 m (from topographic map). Prior to Apr. 24, 1929, nonrecording gage at site 140 ft (42.7 m) upstream at different datum.

REMARKS.--Records good except those for winter period, which are fair. Diversion above station.

COOPERATION.--This station is maintained by the United States under agreement with Canada. Three discharge measurements per year furnished by Water Survey of Canada.

AVERAGE DISCHARGE.--48 years (water years 1930-78), 197 ft³/s (5.58 m³/s), 27.58 in/yr (700.5 mm/yr); 142,700 acre-ft/yr (176 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,540 ft³/s (100 m³/s) June 2, 1968, gage height, 6.00 ft (1.829 m), from rating curve extended above 2,000 ft³/s); minimum, 5 ft³/s (142 dm³/s) sometime between Nov. 10 and Dec. 3, 1936; minimum gage height, 0.24 ft (0.073 m) Nov. 22, 1952.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1300 ft³/s (36.8 m³/s) and maximum(*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 9	2300	1360	38.5	4.03	1.228	May 21	2015	*1860	52.7	*4.48	1.366
May 14	1845	1520	43.0	4.14	1.262	June 5	2000	1660	47.0	4.28	1.305

Minimum discharge, 19 ft³/s (0.54 m³/s) Feb. 24, gage height, 0.93 ft (0.283 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 18 to Dec. 2, Dec. 6-13, Dec. 20 to Jan. 10, Jan. 30 to Feb. 2, Feb. 13-16, Mar. 2-6, 16)

0.8	15	2.5	346
1.0	27	3.0	574
1.2	45	3.5	897
1.6	101	4.0	1,310
2.0	189	4.6	1,900

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	58	54	30	29	24	335	685	672	218	52	105
2	38	160	59	29	31	22	279	604	839	176	50	70
3	36	90	56	31	32	22	238	666	1080	178	47	59
4	34	74	54	34	31	23	215	619	1210	178	46	52
5	34	66	49	38	31	25	207	496	1300	161	44	54
6	34	63	47	41	32	26	189	463	1180	154	41	59
7	35	61	44	42	32	27	181	510	1050	156	40	59
8	37	38	41	41	31	31	184	579	1010	149	39	122
9	47	55	40	40	30	33	178	675	912	218	37	105
10	40	57	41	39	30	33	194	1150	685	159	35	86
11	37	58	48	37	28	32	238	981	579	145	34	84
12	37	55	48	36	27	31	232	736	520	135	37	73
13	38	55	51	36	25	31	212	685	636	122	47	68
14	37	56	57	35	25	30	202	1210	649	112	45	64
15	34	51	66	38	26	25	189	1340	563	103	45	68
16	33	52	65	37	26	29	189	1150	477	108	59	67
17	32	41	62	37	27	31	186	1040	440	124	58	60
18	31	37	56	36	27	31	178	1040	463	150	47	57
19	31	34	53	35	27	35	194	1150	427	120	43	55
20	30	32	49	35	27	39	257	1280	389	104	63	53
21	29	31	47	34	27	46	263	1470	385	96	54	72
22	29	32	45	34	27	58	235	1350	369	89	47	110
23	29	34	43	31	27	71	218	927	343	82	68	129
24	31	37	42	34	24	104	210	632	324	75	57	113
25	43	39	40	35	28	120	224	736	306	71	57	94
26	43	41	38	34	28	163	332	636	269	67	60	84
27	40	43	36	33	28	199	552	625	244	74	50	82
28	36	45	35	33	27	226	703	743	229	67	44	88
29	56	48	34	32	---	253	703	797	215	63	41	79
30	76	50	33	26	---	310	691	636	199	60	39	74
31	62	---	32	26	---	414	---	590	---	57	57	---
TOTAL	1188	1593	1463	1079	790	2544	8408	27009	17963	3771	1483	2345
MEAN	38.3	53.1	47.2	34.8	28.2	82.1	280	871	599	122	47.8	78.2
MAX	76	160	66	42	32	414	703	1470	1300	218	68	129
MIN	29	31	32	26	24	22	178	463	199	57	34	52
CFSM	.40	.55	.49	.36	.29	.85	2.89	8.98	6.18	1.26	.49	.81
IN.	.46	.61	.56	.41	.30	.98	3.22	10.36	6.89	1.45	.57	.90
AC-FT	2360	3160	2900	2140	1570	5050	16680	53570	35630	7480	2940	4650

CAL YR 1977 TOTAL 34731 MEAN 95.2 MAX 890 MIN 16 CFSM .98 IN 13.32 AC-FT 68890
WTR YR 1978 TOTAL 69636 MEAN 191 MAX 1470 MIN 22 CFSM 1.97 IN 26.71 AC-FT 138100

12322000 KOOTENAI RIVER AT PORTHILL, ID
(International gaging station)

LOCATION.--Lat 49°00'00", long 116°30'10", in NE¼NW¼SW¼ sec.8, T.65 N., R.1 W., Boundary County, Hydrologic Unit 17010104, on right bank 300 ft (91.4 m) south of international boundary at Porthill, and at mile 105.63 (170 km).

DRAINAGE AREA.--13,700 mi² (35.480 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May to July 1904 and October 1927 to March 1928 (elevations only), and April 1928 to current year in reports of Geological Survey. October 1924 to September 1927 (gage heights only) in reports of Water Survey of Canada, Department of Energy, Mines and Resources.

GAGE.--Water-stage recorder. Datum of gage is 1,700.00 ft (518.160 m) Topographic Division Datum of 1928. Gage readings have been reduced to that datum. National Geodetic Vertical Datum of 1929 and datum of Geodetic Survey of Canada are 0.03 ft (0.091 m) higher. Prior to May 17, 1928, nonrecording gages at approximately same site. Datum of gages prior to July 28, 1928, 38.34 ft (11.686 m) higher, except in 1904 when different datum was used.

REMARKS.--Records fair. Daily discharge represents entire flow passing international boundary, and is computed by adding tributary inflow for intervening area to flow at station near Copeland and correcting for channel storage between stations near Copeland and at Porthill. Boundary dike of Reclamation Farm and U.S. Forest Service roadway dike (south side of Boundary Creek) remained intact and flow of river was confined throughout year to main channel on which gage is located. Elevations affected by backwater from Kootenay Lake. No drainage dike failed during year. Flow regulated by Libby Dam started on Mar. 21, 1972.

COOPERATION.--This station is maintained by the United States under agreement with Canada.

AVERAGE DISCHARGE.--50 years, 16,040 ft³/s (454 m³/s), 15.90 in/yr (403.9 mm/yr), 11,620,000 acre-ft/yr (14,330 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 125,000 ft³/s (3,540 m³/s) June 1, 1948; maximum elevation, 1,767.61 ft (538.768 m) June 7, 1961; minimum daily discharge, 1,380 ft³/s (39.1 m³/s) Feb. 8, 1936; minimum elevation, 1,738.21 ft (529.806 m) Apr. 3, 1944.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known, 1,772.7 ft (540.319 m) in June 1894, present datum.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 29,300 ft³/s (829.8 m³/s) May 16; maximum elevation, 1,750.13 ft (533.440 m) June 10; minimum daily discharge, 2,920 ft³/s (82.7 m³/s) Jan. 1; minimum elevation, 1,740.36 ft (530.462 m) Apr. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16400	19000	17100	2920	13400	13300	19200	18700	17500	19300	12800	11900
2	8100	20800	17300	4310	13600	13600	16400	20100	17200	19400	12800	10900
3	8820	21900	12300	16700	13800	7400	14300	21400	19900	21100	12600	5750
4	19000	22000	6490	17000	13300	6280	12800	20500	22200	21800	12400	5360
5	10500	20600	7230	14400	4710	5050	11700	18600	24100	21900	12400	5560
6	12900	15100	10800	14400	5190	4890	11000	16600	24800	21800	12400	12800
7	15500	21400	8050	10400	12200	4830	10300	15400	26400	23000	12400	14700
8	15000	19700	5620	4160	11500	4840	9600	15000	24900	20000	12100	15000
9	8210	15500	16400	5690	11600	5060	9230	15900	26400	18800	11600	15200
10	5060	20900	15200	14200	11800	4960	8940	20700	25200	13600	15500	15100
11	8720	20900	5570	14200	11200	4620	9320	22600	18900	16800	15900	13300
12	11100	16300	7370	14300	4870	4590	9750	21300	15200	18000	15900	9920
13	15000	4780	9710	14200	5260	4620	9550	19200	18400	17800	11100	10500
14	15000	7090	10800	13000	11600	4340	9330	20500	20800	17500	6120	10600
15	13400	12600	7500	4170	9950	4270	9000	26300	20300	17000	7610	10800
16	4780	12800	7990	5430	11800	4330	8940	29300	19500	14400	9880	10000
17	6090	12700	11400	13700	11600	4200	8850	27300	16400	11100	5940	5820
18	10000	19600	6690	13700	9840	4220	8780	25800	12800	17300	10200	5580
19	6020	20000	6180	13700	4880	3490	8650	25100	12800	17600	10400	8990
20	19000	19500	5870	13900	5240	3930	9070	25500	17200	17100	5700	10200
21	18300	20000	7620	13300	11800	4380	9680	28600	15400	10300	5560	10500
22	6500	19900	5420	4300	11900	4930	9810	28200	12000	6720	10300	13900
23	15200	20100	5920	5380	12100	5460	9500	25600	11400	6160	11200	15000
24	6110	20200	5090	13300	12400	7140	9110	22800	10700	5940	11100	15100
25	16000	20200	4960	12800	12700	9130	9020	21300	10100	7510	11900	15000
26	10600	20900	4880	13700	5270	9570	9640	19300	10100	9110	9340	15000
27	7840	13400	5480	13700	5560	10500	12000	17800	15700	11500	8460	14900
28	9310	5300	14100	13300	13000	11700	15700	17600	15400	14200	6280	14900
29	9100	18900	14400	4740	---	13400	17900	18200	15100	14000	9370	14800
30	4840	16100	14700	5520	---	14800	18500	17600	17600	13600	11900	14900
31	5760	---	13600	13200	---	18700	---	17000	---	10900	12000	---
TOTAL	338180	518170	292250	337720	282070	222530	335570	658400	534400	475240	333160	351980
MEAN	10910	17270	9427	10890	10070	7178	11190	21240	17810	15330	10750	11730
MAX	19000	22000	17300	17000	13800	18700	19200	29300	26400	23000	15900	15200
MIN	4780	4780	4880	2920	4710	3490	8650	15000	10100	5940	5560	5360
AC-FT	670800	1028000	579700	669900	559500	441400	665600	1306000	1060000	942600	660800	698200

CAL YR 1977 TOTAL 3974430 MEAN 10900 MAX 24400 MIN 3940 AC-FT 7893000
WTR YR 1978 TOTAL 4679670 MEAN 12820 MAX 29300 MIN 2920 AC-FT 9282000

12322000 KOOTENAI RIVER AT PORTHILL, ID--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46.48	46.05	46.33	44.77	43.73	42.60	42.60	42.94	46.12	48.26	45.30	44.61
2	45.77	46.72	46.51	44.43	43.78	42.58	42.60	43.27	46.02	48.43	45.13	44.86
3	45.51	46.96	46.50	44.79	43.78	42.23	42.24	43.78	46.34	48.43	45.02	44.67
4	45.94	47.12	45.75	45.03	43.90	41.88	41.94	43.96	46.99	48.58	44.97	44.65
5	46.01	47.12	45.53	45.09	43.44	41.73	41.69	43.74	47.65	48.58	45.03	44.66
6	45.78	46.51	45.71	45.17	43.17	41.61	41.61	43.46	48.30	48.57	45.03	45.04
7	45.90	46.83	45.56	45.18	43.35	41.49	41.45	43.29	48.79	48.67	45.03	45.51
8	46.09	47.00	45.30	44.73	43.47	41.39	41.31	43.22	49.14	48.58	44.98	45.59
9	45.78	46.60	45.73	44.56	43.46	41.33	41.17	43.32	49.55	48.27	44.85	45.78
10	45.58	46.71	46.30	44.93	43.42	41.28	41.06	43.93	49.93	47.74	45.08	45.81
11	45.57	46.86	45.79	45.16	43.38	41.21	41.06	44.63	49.44	48.01	45.12	45.74
12	45.71	46.76	45.69	45.26	42.95	41.10	41.05	44.74	49.05	47.97	45.02	45.27
13	46.08	45.72	45.97	45.30	42.69	40.98	40.97	44.44	49.16	47.84	44.73	45.22
14	46.18	45.25	46.02	45.25	42.88	40.96	40.85	44.51	49.49	47.69	44.20	45.03
15	46.22	45.71	45.94	44.73	42.85	40.87	40.73	45.38	49.43	47.59	44.16	44.85
16	45.81	45.76	45.73	44.38	42.91	40.76	40.61	46.47	49.26	47.30	44.33	44.84
17	45.67	45.88	45.90	44.64	42.91	40.70	40.56	46.60	48.88	46.97	44.22	44.45
18	45.94	46.18	45.60	44.78	42.72	40.63	40.52	46.47	48.39	47.28	44.43	44.30
19	45.78	46.74	45.36	44.74	42.43	40.53	40.46	46.48	48.31	47.34	44.58	44.38
20	46.38	46.80	45.20	44.70	42.16	40.44	40.45	46.60	48.46	47.26	44.33	44.54
21	46.95	46.84	45.14	44.63	42.35	40.41	40.52	47.09	48.35	46.65	44.25	44.55
22	46.27	46.88	45.06	44.09	42.58	40.40	40.55	47.60	48.00	46.12	44.44	44.81
23	46.32	46.88	44.97	43.80	42.61	40.40	40.49	47.81	47.89	45.80	44.39	45.20
24	45.85	46.88	44.86	44.07	42.68	40.44	40.43	47.37	47.80	45.57	44.42	45.46
25	46.20	46.89	44.68	44.15	42.75	40.60	40.39	47.13	47.65	45.50	44.53	45.68
26	46.13	46.95	44.55	44.19	42.34	40.74	40.45	46.86	47.51	45.56	44.55	45.85
27	45.91	46.86	44.46	44.20	42.06	40.89	40.76	46.55	47.73	45.65	44.42	46.00
28	45.92	45.86	44.88	44.17	42.36	41.07	41.41	46.41	47.86	45.77	44.23	46.21
29	45.94	46.03	45.11	43.65	---	41.27	42.24	46.51	47.66	45.90	44.33	46.35
30	45.81	46.53	45.18	43.31	---	41.58	42.71	46.42	48.10	45.66	44.54	46.34
31	45.64	---	45.28	43.59	---	42.05	---	46.18	---	45.32	44.60	---
MEAN	45.97	46.53	45.50	44.56	42.97	41.17	41.16	45.40	48.24	47.19	44.65	45.21
MAX	46.95	47.12	46.51	45.30	43.90	42.60	42.71	47.81	49.93	48.67	45.30	46.35
MIN	45.51	45.25	44.46	43.31	42.06	40.40	40.39	42.94	46.02	45.32	44.16	44.30

WTR YR 1978 MEAN 44.89 MAX 49.93 MIN 40.39

NOTE.--Add 1,700 ft to obtain elevation above mean sea level.

12322000 KOOTENAI RIVER AT PORTHILL, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1949-50, 1963 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: January 1949 to September 1950, May 1963 to current year.

INSTRUMENTATION.--Temperature recorder since May 23, 1963.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 23.5°C July 27, 1975; minimum, 0.0°C on many days during winter months.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 21.0°C July 27-29; minimum, 1.0°C Dec. 29, Jan. 5, 6.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT 03...	1430	9620	235	13.5	11.0
NOV 29...	1025	15700	223	11.0	6.0
JUN 01...	1005	16700	96	16.5	11.5

12322000 KOOTENAI RIVER AT PORTHILL, ID--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	11.0	10.5	7.0	7.0	5.5	5.5	3.5	3.0	3.5	3.5	4.5	4.5
2	11.0	11.0	7.0	7.0	5.5	5.5	3.5	3.0	3.5	3.0	4.5	4.5
3	11.0	11.0	7.0	7.0	5.5	5.0	3.0	3.0	3.0	2.0	4.5	3.5
4	11.0	10.5	8.0	7.0	5.5	5.0	3.0	1.5	2.0	2.0	3.5	3.5
5	10.5	10.5	8.0	7.0	5.5	5.5	1.5	1.0	2.0	2.0	4.0	3.5
6	10.5	10.0	8.0	7.0	5.5	5.5	2.0	1.0	3.5	2.0	4.0	3.5
7	10.0	10.0	8.0	8.0	5.5	5.0	3.0	2.0	3.5	3.5	4.5	3.5
8	10.0	9.5	8.0	8.0	5.0	4.0	3.0	3.0	4.0	3.5	4.0	3.0
9	9.5	9.5	8.0	8.0	4.0	3.5	3.5	3.0	4.0	4.0	4.0	3.5
10	10.0	9.5	8.0	8.0	4.0	3.5	3.5	3.5	4.0	4.0	4.5	3.5
11	10.0	10.0	8.0	7.0	3.5	3.0	3.5	3.0	4.0	4.0	5.0	4.0
12	10.0	9.5	8.0	7.0	3.5	3.0	3.0	3.0	4.0	4.0	5.5	4.5
13	10.0	9.5	8.0	8.0	3.5	3.5	3.5	3.0	4.5	4.0	5.5	5.0
14	9.5	9.5	8.0	8.0	4.0	3.5	3.0	3.0	4.0	4.0	5.5	5.0
15	9.5	9.5	8.0	8.0	4.0	4.0	3.0	3.0	4.0	3.5	6.0	5.0
16	10.0	9.5	7.0	7.0	4.0	4.0	3.0	3.0	3.5	3.0	---	---
17	10.0	10.0	7.0	6.5	4.5	4.0	3.0	3.0	3.5	3.5	---	---
18	10.0	9.5	6.5	6.5	4.5	4.0	3.0	3.0	5.0	4.5	---	---
19	9.5	9.5	6.5	6.0	4.5	4.5	3.0	3.0	4.5	4.0	---	---
20	9.5	9.0	6.5	6.5	4.5	4.0	3.5	3.0	5.0	4.5	---	---
21	9.0	9.0	6.5	6.0	4.0	4.0	3.0	3.0	4.5	4.5	---	---
22	9.0	8.5	6.0	5.5	4.0	4.0	3.0	3.0	4.5	4.5	---	---
23	8.5	8.0	5.5	5.5	4.0	3.5	3.5	3.5	5.0	4.5	---	---
24	8.0	8.0	5.5	5.5	3.5	3.0	3.5	3.0	5.0	4.5	---	---
25	8.0	8.0	5.5	5.5	3.0	2.0	3.0	3.0	4.5	4.5	6.5	6.5
26	8.0	7.0	6.0	5.5	2.0	1.5	3.0	3.0	5.0	4.5	7.0	6.5
27	7.0	7.0	6.0	6.0	1.5	1.5	3.5	3.5	5.0	4.5	6.5	6.5
28	7.0	7.0	6.0	6.0	1.5	1.5	4.0	3.5	4.5	4.5	7.0	6.5
29	7.0	7.0	6.0	6.0	1.5	1.0	4.0	4.0	---	---	6.5	6.5
30	7.0	7.0	6.0	5.5	2.0	1.5	4.0	4.0	---	---	6.5	6.5
31	7.0	6.5	---	---	3.0	2.0	4.0	3.5	---	---	6.5	6.5
MONTH	11.0	6.5	8.0	5.5	5.5	1.0	4.0	1.0	5.0	2.0	7.0	3.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6.5	6.5	9.5	9.5	11.0	11.0	18.5	18.0	20.0	19.5	18.0	18.0
2	6.5	6.5	9.5	9.5	11.0	11.0	18.5	18.5	19.5	19.5	18.0	17.0
3	6.5	6.0	9.5	9.5	11.0	11.0	18.5	18.0	19.5	19.5	17.0	17.0
4	6.5	6.0	9.5	9.5	11.5	11.0	18.0	18.0	19.5	19.5	17.0	17.0
5	6.0	6.0	9.5	9.5	13.5	11.5	18.0	18.0	20.0	19.5	18.0	17.0
6	6.5	6.0	9.5	9.0	13.5	13.5	18.0	18.0	20.5	20.0	18.0	18.0
7	6.5	6.5	9.0	9.0	13.5	13.5	18.0	17.0	20.5	20.5	18.0	17.0
8	6.5	6.5	9.0	9.0	13.5	13.5	18.0	17.0	20.5	20.5	18.0	18.0
9	7.0	6.5	9.5	9.0	13.5	13.5	18.0	18.0	20.5	20.5	18.0	17.0
10	7.0	7.0	9.5	9.5	14.0	13.5	18.0	18.0	20.5	20.0	17.0	16.5
11	7.0	7.0	10.0	9.5	14.0	14.0	18.5	18.0	20.0	20.0	16.5	16.5
12	7.0	7.0	10.0	10.0	14.0	13.5	18.5	18.5	20.0	19.5	16.5	16.0
13	8.0	7.0	10.0	9.5	13.5	13.0	18.5	18.5	19.5	19.0	16.0	16.0
14	8.5	8.5	9.5	9.5	13.0	13.0	18.5	18.0	19.0	19.0	16.0	16.0
15	9.0	8.5	9.5	9.5	13.0	13.0	18.5	18.0	19.0	19.0	16.0	15.5
16	8.5	8.5	10.0	10.0	13.0	13.0	18.5	18.5	19.0	18.5	15.5	15.5
17	8.5	8.0	10.0	10.0	13.0	13.0	18.5	18.5	18.5	18.0	15.5	15.0
18	9.5	8.0	10.0	10.0	13.0	13.0	18.5	18.5	18.5	18.0	15.0	14.5
19	11.0	8.5	10.0	10.0	13.0	13.0	18.5	18.5	18.0	18.0	14.5	14.5
20	10.5	9.5	10.5	10.0	13.5	13.0	18.5	18.5	18.0	18.0	14.5	14.5
21	9.5	9.5	11.5	10.5	14.0	13.5	18.5	18.5	18.0	18.0	14.5	14.0
22	10.0	9.0	11.5	11.5	14.5	14.0	18.5	18.5	18.0	18.0	14.0	13.5
23	10.0	9.5	11.5	11.5	15.0	14.5	19.0	18.5	18.0	18.0	13.5	13.5
24	10.5	9.5	11.5	11.5	15.5	15.5	19.5	19.0	18.0	18.0	13.0	13.0
25	10.0	9.5	11.5	11.0	16.5	16.0	19.5	19.5	18.0	18.0	13.0	13.0
26	10.0	9.5	11.0	10.5	16.5	16.5	20.5	19.5	18.0	18.0	13.0	13.0
27	9.5	9.5	10.5	10.5	17.0	17.0	21.0	20.5	18.0	18.0	13.0	13.0
28	9.5	9.5	10.5	10.5	17.0	17.0	21.0	21.0	18.0	18.0	13.5	13.0
29	10.0	9.5	10.5	10.5	17.0	17.0	21.0	20.5	18.0	18.0	13.5	13.5
30	10.0	9.5	10.5	10.5	18.0	17.0	20.5	20.5	18.0	18.0	13.5	13.0
31	---	---	11.0	10.5	---	---	20.5	20.0	18.0	18.0	---	---
MONTH	11.0	6.0	11.5	9.0	18.0	11.0	21.0	17.0	20.5	18.0	18.0	13.0
YEAR	21.0	1.0										

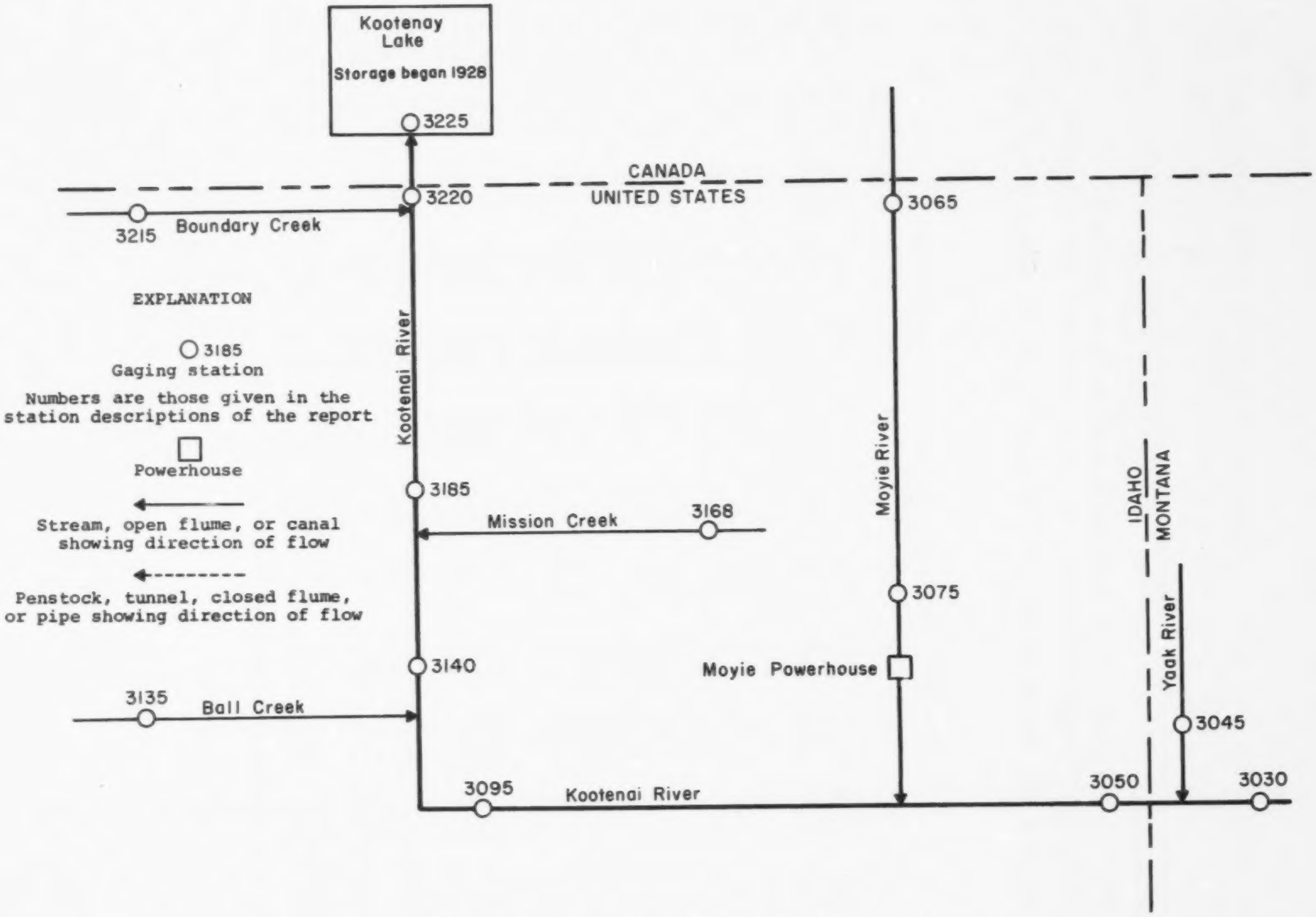

Kootenay Lake
Storage began 1928
3225
3220
CANADA
UNITED STATES
3065
3215
Boundary Creek
EXPLANATION
○ 3185
Gaging station
Numbers are those given in the station descriptions of the report
☐
Powerhouse
Stream, open flume, or canal showing direction of flow
Penstock, tunnel, closed flume, or pipe showing direction of flow
Kootenai River
3185
Mission Creek
3168
Moyie River
IDAHO
MONTANA
3075
Yaak River
3140
Moyie Powerhouse
3135
Ball Creek
3045
3095
Kootenai River
3050
3030

FIGURE 10.--Gaging stations in Kootenai River basin.

12322500 KOOTENAY LAKE AT KUSKONOOK, BRITISH COLUMBIA

LOCATION.--Lat 49°17'56", long 116°39'31", on east shore of lake at Kuskonook and at mile 74.5 (119.9 km).

PERIOD OF RECORD.--April 1936 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,735.20 ft (528.889 m) National Geodetic Vertical Datum of 1929, which is the same at Porthill as datum of 1929, supplementary adjustment of 1947, and 0.03 ft (0.009 m) higher than datum in use at station Kootenai River at Porthill. Gage heights have been reduced to elevations above datum in use at station Kootenai River at Porthill. Prior to Apr. 25, 1938, nonrecording gage at same site at datum 3.00 ft (0.914 m) higher.

REMARKS.--Elevation is subject to partial regulation by Corra Linn Dam on Kootenay River below outlet. Major inflow is from Kootenai River (see sta 12322000). Diversions for irrigation of about 14,600 acres (5,910 hm²) above Kootenay Lake.

COOPERATION.--This station is maintained by Canada under agreement with the United States.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,762.42 ft (537.186 m) June 9, 1961; minimum daily, 1,737.86 ft (529.700 m) Apr. 5, 6, 1944.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,748.08 ft (532.815 m) June 11; minimum daily, 1,739.48 ft (530.1935 m) Apr. 26.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45.11	45.29	45.35	44.20	42.79	41.57	40.32	40.64	44.64	47.00	44.47	44.02
2	45.14	45.39	45.41	44.07	42.80	41.50	40.43	40.91	44.57	47.04	44.33	44.26
3	45.06	45.51	45.42	43.99	42.81	41.46	40.51	41.21	44.63	47.02	44.24	44.39
4	45.02	45.54	45.27	44.05	42.90	41.39	40.50	41.45	44.89	47.03	44.22	44.40
5	45.07	45.55	45.15	44.11	42.90	41.29	40.46	41.62	45.32	47.01	44.29	44.43
6	45.04	45.48	45.09	44.22	42.78	41.17	40.42	41.70	45.87	47.02	44.30	44.47
7	45.07	45.56	45.06	44.31	42.68	41.06	40.34	41.73	46.36	47.05	44.29	44.62
8	45.19	45.54	44.98	44.29	42.67	40.96	40.28	41.74	46.82	47.09	44.23	44.70
9	45.27	45.45	44.98	44.17	42.64	40.86	40.20	41.79	47.38	47.09	44.17	44.82
10	45.23	45.38	45.22	44.12	42.61	40.76	40.10	41.91	47.85	46.97	44.13	44.85
11	45.17	45.36	45.37	44.25	42.54	40.63	40.05	42.10	48.03	46.87	44.08	44.87
12	45.13	45.31	45.39	44.30	42.44	40.52	39.99	42.28	48.03	46.77	43.96	44.76
13	45.18	45.15	45.45	44.31	42.30	40.43	39.93	42.41	47.99	46.65	43.98	44.60
14	45.32	44.97	45.46	44.30	42.19	40.34	39.85	42.54	48.02	46.54	43.86	44.42
15	45.42	44.97	45.40	44.17	42.13	40.22	39.80	42.75	48.00	46.46	43.74	44.26
16	45.46	45.01	45.31	43.98	42.08	40.12	39.71	43.07	47.90	46.38	43.84	44.22
17	45.42	45.11	45.22	43.84	42.04	40.03	39.68	43.35	47.72	46.31	43.91	44.15
18	45.48	45.26	45.10	43.80	41.98	39.94	39.63	43.55	47.55	46.24	43.91	44.02
19	45.49	45.39	44.94	43.76	41.89	39.84	39.57	43.74	47.42	46.17	44.00	43.94
20	45.57	45.47	44.81	43.72	41.73	39.77	39.55	43.96	47.32	46.10	44.01	43.96
21	45.74	45.52	44.72	43.67	41.69	39.70	39.56	44.25	47.28	45.94	43.92	43.99
22	45.64	45.51	44.67	43.58	41.71	39.64	39.57	44.62	47.21	45.67	43.83	44.06
23	45.51	45.47	44.59	43.43	41.74	39.59	39.55	44.93	47.19	45.39	43.75	44.26
24	45.45	45.46	44.46	43.29	41.77	39.57	39.53	45.09	47.11	45.19	43.79	44.49
25	45.44	45.46	44.32	43.26	41.77	39.58	39.49	45.15	47.01	45.06	43.89	44.71
26	45.47	45.50	44.22	43.26	41.76	39.63	39.48	45.13	46.87	45.01	43.97	44.91
27	45.48	45.47	44.14	43.23	41.65	39.67	39.52	45.05	46.80	45.00	43.94	45.11
28	45.50	45.30	44.05	43.17	41.59	39.80	39.72	44.99	46.81	44.96	43.87	45.35
29	45.51	45.22	44.12	43.11	---	39.96	40.05	44.97	46.84	44.90	43.80	45.42
30	45.48	45.28	44.18	42.91	---	40.06	40.37	44.88	46.93	44.76	43.82	45.38
31	45.36	---	44.23	42.81	---	40.18	---	44.76	---	44.61	43.89	---
MEAN	45.34	45.36	44.91	43.80	42.24	40.36	39.94	43.17	46.88	46.17	44.01	44.53
MAX	45.74	45.56	45.46	44.31	42.90	41.57	40.51	45.15	48.03	47.09	44.47	45.42
MIN	45.02	44.97	44.05	42.81	41.59	39.57	39.48	40.64	44.57	44.61	43.74	43.94

NOTE.--Add 1,700 ft to obtain elevation above mean sea level.

12392000 CLARK FORK AT WHITEHORSE RAPIDS, NEAR CABINET, ID

LOCATION.--Lat 48°05'18", long 116°04'16", in SW¼NW¼ sec.27, T.55 N., R.3 E., Bonner County, Hydrologic Unit 17010213, on right bank 0.8 mi (1.3 km) downstream from Cabinet Gorge Dam at cableway, 2.1 mi (3.4 km) downstream from Blue Creek, 6.1 mi (9.8 km) southeast of Clark Fork, and at mile 149.1 (239.9 km). Discharge computed at Whitehorse Rapids, 2.3 mi (3.7 km) downstream.

DRAINAGE AREA.--22,073 mi² (57,169 km²), based on revised area of 22,067 mi² (57,154 km²) for site 0.4 mi (0.6 km) upstream.

PERIOD OF RECORD.--September 1928 to current year. Prior to October 1952, published as "near Heron, Mont."

REVISED RECORDS.--WSP 1182: 1936. WSP 1736: 1931, 1936(m), 1937.

GAGE.--Water-stage recorder. Datum of gage is 2,060.00 ft (627.888 m) National Geodetic Vertical Datum of 1929, levels by Washington Water Power Co. See WSP 1934 for history of changes made prior to Sept. 30, 1952. Water-stage recorder at site 0.4 mi (0.6 km) upstream at datum 60.00 ft (18.288 m) lower Oct. 1, 1952, to Sept. 30, 1964, and at present datum Oct. 1, 1964, to May 21, 1973.

REMARKS.--Records good except those for January, which are fair. Flow regulated by Hungry Horse Reservoir and Flathead Lake. Extreme diurnal fluctuation caused by powerplant at Cabinet Gorge Dam. Diversions above station for irrigation of about 354,000 acres (143,000 hm²). Discharge measurements indicate about 800 ft³/s (22.7 m³/s) ground-water inflow between Cabinet Gorge Dam and Whitehorse Rapids. Records given herein represent flow at Whitehorse Rapids, computed by adding 600 ft³/s (17.0 m³/s) to observed flows at the measuring cableway, and are considered comparable to records at former site near Heron, except for minor surface inflow from additional drainage area. To determine flow at Cabinet Gorge Dam, 800 ft³/s (22.7 m³/s) should be deducted from discharges published herein.

AVERAGE DISCHARGE.--50 years, 22,410 ft³/s (634.7 m³/s), 16,240,000 acre-ft/yr (20.0 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 153,000 ft³/s (4,333 m³/s) May 29 to June 1, 1948; maximum gage height, 50.97 ft (15.536 m) May 31, 1948, site and datum then in use; minimum observed, 270 ft³/s (7.65 m³/s) Aug. 12, 1952 (discharge measurement), at sites in use since October 1952, during filling of Cabinet Gorge reservoir; minimum daily since reservoir filled, 762 ft³/s (21.6 m³/s) Sept. 2, 1962.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in June 1894 reached a discharge of 195,000 ft³/s (5,520 m³/s) from floodmark (elevation of 2,137.1 ft (651.388 m) at site about 4 mi (6.4 km) upstream and 0.1 mi (0.2 km) below "near Heron" site.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 71,700 ft³/s (2,031 m³/s) June 10, gage height, 20.55 ft (6.264 m); minimum, 1,040 ft³/s (29.4 m³/s) Oct. 2, gage height, 4.20 ft (1.280 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6420	16300	14600	10300	17000	17400	30600	26800	52800	53900	18900	14500
2	7050	17000	15200	11400	13300	15300	32000	31500	52800	49500	17700	12300
3	13200	17600	17400	10300	21200	17000	31400	33600	52600	43700	20000	10700
4	14000	17100	16500	12700	17700	9260	30200	41600	53800	48100	20100	13000
5	11800	18300	16400	13400	11100	13500	31700	39300	53700	47900	15700	11700
6	11000	12200	14100	17300	17700	15600	31700	35400	54500	48400	5480	15300
7	16900	12700	14500	15000	17800	13100	31700	35500	53400	48200	17700	16000
8	6820	15500	14100	11900	15300	10800	31800	35400	58500	47500	13600	12800
9	6680	12500	16000	19400	17300	12700	31600	35300	60600	47700	16200	10400
10	10800	15200	14200	20900	15900	13800	30600	35400	67200	47400	14000	16100
11	12300	17600	16500	15400	18200	13300	26200	35200	69100	45900	16100	13000
12	13300	16700	16100	20500	15700	15100	28000	34700	66800	43900	11600	14000
13	10600	13300	13500	15200	21000	14600	23100	33600	62200	40800	6040	10800
14	10800	15900	14600	15100	18100	15400	25900	33700	55200	35500	10900	15900
15	12200	15400	23000	11300	19200	16100	19200	39200	53200	33300	8550	11400
16	13500	17300	21200	16400	18700	12200	21700	51100	48600	27300	10300	15500
17	13200	13700	15500	17900	19000	16400	35100	51000	50500	28700	9620	12200
18	15000	12100	15800	17700	16300	14400	33900	47100	49300	27100	7080	16500
19	16500	16500	20400	18100	12900	19200	32500	50300	52300	26200	8500	13100
20	18000	18000	21800	16700	15400	20100	31900	50700	50400	31800	11400	13600
21	17600	19500	14700	15700	15000	12800	35600	50700	49800	34300	8700	15100
22	12700	16900	13400	15900	16400	22300	30700	51700	49800	32400	11000	16500
23	9000	13200	14100	18600	16700	21400	32900	52400	50100	28600	10300	16600
24	16800	10300	15300	15500	16700	17300	32200	51600	51200	28400	14100	11100
25	15000	8490	14500	17300	15500	15500	32600	50300	53500	17000	12600	16000
26	15900	12200	12700	18100	16700	12500	27400	50700	57300	18800	11400	15300
27	18400	11600	14600	16500	16700	19800	29600	50600	60200	21000	14100	10700
28	18000	14700	12100	16700	16800	23200	27700	50800	58200	21600	14200	12500
29	16900	14400	13800	17000	---	24000	18600	50500	54700	11200	11400	12200
30	9140	13400	12700	16900	---	24100	25100	52700	56100	17500	13200	13200
31	16900	---	15100	15500	---	28600	---	52800	---	18200	14500	---
TOTAL	407610	446040	489400	491300	469300	516760	883200	1341700	1658400	1071800	395000	408000
MEAN	13150	14870	15790	15850	16760	16670	29440	43280	55280	34570	12740	13600
MAX	18400	19500	23000	20900	21200	28600	35600	52800	69100	53900	20100	16600
MIN	6420	8490	12100	10300	11100	9260	18600	26800	49600	11200	5480	10400
AC-FT	808500	884800	970700	974500	930900	1025000	1752000	2661000	3289000	2126000	783500	809300

CAL YR 1977 TOTAL 4728410 MEAN 12960 MAX 26300 MIN 3350 AC-FT 9380000
WTR YR 1978 TOTAL 8578560 MEAN 23500 MAX 69100 MIN 5480 AC-FT 17020000

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12392300 PACK RIVER NEAR COLBURN, ID

LOCATION.--Lat 48°25'12", long 116°30'02", in NW¼SW¼ sec.32, T.59 N., R.1 W., Bonner County, Hydrologic Unit 17010214, on right bank 50 ft (15.2 m) downstream from bridge on U.S. Highway 95, 2.2 mi (3.5 km) northeast of Colburn, 10 mi (16.1 km) north of Sandpoint, and at mile 28.07 (45.2 km).

DRAINAGE AREA.--124 mi² (321 km²). Mean altitude, 4,210 ft (1,283 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1958 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,130 ft (649 m), from topographic map.

REMARKS.--Records good except those for winter period, which are fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--20 years, 328 ft³/s (9.29 m³/s), 35.92 in/yr (912 mm/yr), 237,600 acre-ft/yr (293 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,880 ft³/s (194 m³/s) Jan. 16, 1974, gage height, 16.38 ft (4.993 m); minimum, 15 ft³/s (0.425 m³/s) Sept. 2, 3, 1967; minimum gage height, 0.69 ft (0.210 m) Sept. 14, 15, 1973.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,450 ft³/s (41 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 10	1115	1850	52.4	8.97	2.734	May 22	0515	*1970	55.8	9.30	2.835
May 15	1345	1770	50.1	8.73	2.661	June 6	0345	1760	49.8	8.70	2.652

Minimum discharge, 42 ft³/s (1.19 m³/s) Aug. 11-12, gage height, 1.11 ft (0.338 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Sept. 17-30; stage-discharge relation affected by ice
Nov. 20-24, Nov. 29 to Dec. 1, Dec. 5-13, Dec. 27 to Mar. 6)

1.0	36.0	4.0	436
1.5	74.0	6.0	896
2.0	125	8.0	1,510
3.0	256	9.0	1,860

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	94	140	82	69	87	927	1160	750	281	66	93
2	68	254	188	92	73	84	805	1300	964	272	63	81
3	62	186	235	105	76	83	694	1170	1230	250	59	70
4	59	150	194	110	79	84	623	987	1420	261	57	64
5	57	132	160	115	83	86	599	827	1460	288	55	62
6	56	123	145	117	86	89	552	745	1450	254	53	67
7	55	123	140	115	88	93	509	758	1250	238	51	70
8	58	109	138	113	88	125	505	794	1190	238	49	104
9	62	104	140	111	89	135	451	1040	1080	216	46	141
10	60	102	145	109	88	129	512	1680	830	197	45	112
11	57	100	155	107	85	127	575	1380	672	177	44	100
12	56	99	170	105	82	124	478	1100	611	169	44	90
13	58	102	190	103	78	123	471	976	753	153	49	86
14	62	112	266	101	77	122	509	1310	723	148	47	80
15	60	113	352	99	76	117	475	1680	631	138	51	79
16	58	103	314	97	75	118	480	1500	555	130	108	108
17	57	98	260	95	75	119	480	1250	553	135	81	93
18	55	90	225	94	76	135	447	1230	599	205	78	85
19	54	79	205	93	77	157	461	1350	583	173	79	81
20	54	73	200	91	79	175	546	1470	500	137	96	78
21	53	72	196	89	82	194	552	1600	525	123	80	74
22	52	74	182	87	87	231	495	1730	525	114	71	116
23	52	78	173	85	90	241	467	948	466	105	76	143
24	51	86	167	83	92	479	442	1010	413	99	77	154
25	65	123	159	81	93	467	457	867	399	92	70	125
26	70	222	146	79	93	527	646	748	391	87	68	109
27	68	235	130	76	92	590	969	715	370	90	64	99
28	63	188	125	73	90	616	1210	947	333	84	60	93
29	72	160	128	72	---	725	1330	895	349	78	57	93
30	100	145	125	71	---	932	1110	734	320	73	55	88
31	101	---	115	70	---	1120	---	702	---	69	56	---
TOTAL	1924	3727	5608	2920	2318	8464	18777	34608	21895	5124	1955	2838
MEAN	62.1	124	181	94.2	82.8	274	626	1116	730	165	63.1	94.6
MAX	101	254	352	117	93	1120	1330	1730	1460	288	108	154
MIN	51	72	115	70	69	83	442	702	320	69	44	62
CFSM	.50	1.00	1.46	.76	.67	2.21	5.05	9.00	5.89	1.33	.51	.76
IN.	.58	1.12	1.68	.88	.70	2.55	5.63	10.38	6.57	1.54	.59	.85
AC-FT	3820	7390	11120	5790	4600	16830	37240	68640	43430	10160	3880	5630

CAL YR 1977 TOTAL 51925 MEAN 142 MAX 1040 MIN 19 CFSM 1.15 IN 15.58 AC-FT 103000
WTR YR 1978 TOTAL 110178 MEAN 302 MAX 1730 MIN 44 CFSM 2.44 IN 33.05 AC-FT 218500

PEND OREILLE RIVER BASIN

12392300 PACK RIVER NEAR COLBURN, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
NOV 03...	1130	175	22	--	4.0	3.5	--	--	--
JAN 17...	1450	95	32	--	3.0	.5	--	--	--
FEB 21...	1325	81	32	--	5.0	2.0	--	--	--
MAR 29...	1410	696	24	--	19.5	7.5	--	--	--
MAY 10...	1125	1860	19	--	16.0	7.0	--	--	--
JUL 17...	1330	138	29	7.6	19.0	15.0	9	0	2.8
AUG 31...	1330	55	44	7.0	16.0	17.0	17	0	5.4

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)
NOV 03...	--	--	--	--	--	--	--	--	--
JAN 17...	--	--	--	--	--	--	--	--	--
FEB 21...	--	--	--	--	--	--	--	--	--
MAR 29...	--	--	--	--	--	--	--	--	--
MAY 10...	--	--	--	--	--	--	--	--	--
JUL 17...	.6	1.3	22	.2	.5	15	0	12	1.2
AUG 31...	.9	1.5	15	.2	.7	24	0	20	1.9

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
NOV 03...	--	--	--	--	--	--	--	--
JAN 17...	--	--	--	--	--	--	--	--
FEB 21...	--	--	--	--	--	--	--	--
MAR 29...	--	--	--	--	--	--	--	--
MAY 10...	--	--	--	--	--	--	--	--
JUL 17...	.3	.0	9.1	23	.03	8.57	.02	.01
AUG 31...	.3	.0	11	34	.05	5.05	.03	.01

12392500 PEND OREILLE LAKE NEAR HOPE, ID

LOCATION.--Lat 48°16'35", long 116°20'47", in NW¼SE¼NW¼ sec.21, T.57 N., R.1 E., Bonner County, Hydrologic Unit 17010214, 0.5 mi (0.8 km) southeast of Trestle Creek and 2.5 mi (4.0 km) northwest of Hope.

DRAINAGE AREA.--22,900 mi² (59,310 km²), approximately (natural drainage area above mouth of lake at Sandpoint).

PERIOD OF RECORD.--March 1914 to current year. Published as "at Sandpoint" 1914-22. Records published for both sites September 1921 to September 1922. Published as "at Hope" September 1921 to December 1974.

REVISED RECORDS.--WSP 1122: 1946.

GAGE.--Water-stage recorder. Datum of gage is 2,000.00 ft (609.600 m) National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations of that datum. Prior to Oct. 1, 1921, nonrecording gage at Sandpoint at datum 42.18 ft (13.856 m) higher. Oct. 1, 1921, to Sept. 30, 1929, nonrecording gage "at Hope" site at datum 45.47 ft (13.859 m) higher than present datum. Oct. 1, 1929, to Sept. 30, 1950, water-stage recorder "at Hope" site at datum 0.20 ft (0.061 m) lower than present datum. Oct. 1, 1950, to Dec. 23, 1974, water-stage recorder "at Hope" site and present datum.

REMARKS.--Records excellent. Midnight readings are published. Regulation at Albeni Falls Dam beginning June 4, 1952. Contents shown is that above elevation 2,044.8 ft (623.26 m) but does not include storage in Pend Oreille River above Albeni Falls Dam.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 2,071.62 ft (631.430 m), present datum, June 9, 1948, contents, 2,462,000 acre-ft (3,036 hm³); minimum, 2,046.27 ft (623.703 m), present datum, Feb. 17, 1936, contents, 117,700 acre-ft (145 hm³).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known, 2,075.88 ft (632.728 m), present datum, June 1894 (contents, 2,905,000 acre-ft or 3,582 hm³).

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 2,062.53 ft (628.659 m) Aug. 5, 28, contents, 1,564,000 acre-ft (1,928 hm³); minimum, 2,051.07 ft (625.166 m) Feb. 21, contents, 524,700 acre-ft (647 hm³).

Capacity table (elevation, in feet, and contents, in acre-feet)

2,050	432,000
2,055	871,600
2,060	1,327,000
2,066	1,898,000

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60.01	55.19	51.57	51.37	51.35	51.33	53.00	54.83	57.66	62.46	62.35	62.50
2	59.81	55.02	51.58	51.39	51.33	51.29	53.35	54.82	57.64	62.37	62.36	62.47
3	59.70	54.86	51.61	51.44	51.42	51.32	53.55	55.17	57.53	62.28	62.46	62.40
4	59.56	54.67	51.62	51.45	51.37	51.17	53.72	55.34	57.57	62.35	62.52	62.30
5	59.35	54.58	51.58	51.46	51.29	51.17	53.93	55.53	57.75	62.37	62.48	62.30
6	59.16	54.35	51.61	51.30	51.29	51.29	54.03	55.53	57.74	62.34	62.29	62.37
7	59.11	54.10	51.52	51.32	51.34	51.35	54.12	55.43	57.80	62.37	62.26	62.40
8	58.93	53.85	51.39	51.30	51.29	51.27	54.23	55.40	58.04	62.35	62.26	62.30
9	58.80	53.65	51.42	51.32	51.33	51.21	54.34	55.43	58.24	62.24	62.32	62.23
10	58.65	53.34	51.44	51.39	51.31	51.32	54.44	55.50	58.53	62.32	62.43	62.33
11	58.52	53.23	51.57	51.54	51.31	51.30	54.43	55.57	58.85	62.35	62.47	62.31
12	58.41	53.08	51.63	51.31	51.28	51.33	54.47	55.57	59.14	62.32	62.48	62.30
13	58.24	52.84	51.58	51.41	51.35	51.47	54.37	55.57	59.45	62.31	62.37	62.32
14	58.01	52.64	51.64	51.40	51.38	51.30	54.35	55.50	59.73	62.33	62.31	62.39
15	57.92	52.48	51.79	51.32	51.37	51.48	54.24	55.74	59.96	62.34	62.35	62.37
16	57.90	52.31	51.83	51.33	51.37	51.47	54.15	56.11	60.13	62.45	62.43	62.30
17	57.86	52.04	51.73	51.39	51.41	51.45	54.32	56.40	60.32	62.42	62.41	62.33
18	57.74	51.80	51.61	51.34	51.36	51.42	54.43	56.74	60.65	62.37	62.30	62.40
19	57.61	51.62	51.58	51.37	51.26	51.53	54.48	56.71	60.88	62.40	62.30	62.20
20	57.47	51.49	51.58	51.35	51.21	51.64	54.54	56.92	60.95	62.44	62.31	62.08
21	57.33	51.48	51.50	51.30	51.20	51.60	54.57	57.07	61.19	62.46	62.22	61.90
22	57.11	51.42	51.42	51.25	51.22	51.72	54.42	57.20	61.46	62.44	62.24	61.80
23	56.77	51.36	51.36	51.26	51.24	51.87	54.42	57.40	61.65	62.35	62.22	61.60
24	56.64	51.26	51.35	51.26	51.27	51.93	54.58	57.54	61.83	62.34	62.32	61.57
25	56.37	51.18	51.33	51.36	51.29	52.00	54.66	57.57	62.10	62.28	62.41	61.47
26	56.12	51.21	51.25	51.35	51.33	51.94	54.77	57.62	62.24	62.28	62.40	61.27
27	55.90	51.26	51.23	51.35	51.33	52.02	54.75	57.55	62.33	62.38	62.44	61.05
28	55.80	51.31	51.26	51.39	51.36	52.16	54.70	57.70	62.32	62.44	62.52	60.89
29	55.77	51.37	51.35	51.39	---	52.33	54.73	57.75	62.35	62.33	62.44	60.80
30	55.48	51.40	51.40	51.35	---	52.48	54.79	57.77	62.36	62.29	62.46	60.52
31	55.32	---	51.45	51.34	---	52.64	---	57.64	---	62.24	62.52	---
MEAN	57.20	52.66	51.51	51.40	51.32	51.62	54.15	56.30	59.95	62.37	62.38	62.00
MAX	60.01	55.19	51.83	51.54	51.42	52.64	54.82	57.77	62.36	62.46	62.52	62.50
MIN	55.32	51.18	51.23	51.25	51.20	51.17	53.00	54.82	57.53	62.24	62.22	60.52

WTR YR 1978 MEAN 56.17 MAX 62.52 MIN 51.17

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12393000 PRIEST LAKE AT OUTLET, NEAR COOLIN, ID

LOCATION.--Lat 48°29'36", long 116°52'58", in NE¼SW¼ sec.5, T.59 N., R.4 W., Bonner County, Hydrologic Unit 17010215, 0.5 mi (0.8 km) east of outlet, 1.8 mi (2.9 km) northwest of Coolin, and 44 mi (70.8 km) upstream from mouth of Priest River.

DRAINAGE AREA.--572 mi² (1,480 km²).

PERIOD OF RECORD.--June 1911 to September 1913 (fragmentary gage-height records at Coolin, published as part of records for Priest River at outlet of Priest Lake, at Coolin), April 1928 to July 1950 (gage-height record only), August 1950 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,434.64 ft (742.078 m) above National Geodetic Vertical Datum of 1929. June 18, 1911, to Sept. 30, 1913, nonrecording gages at Coolin at different datums. Apr. 21, 1928, to Oct. 18, 1939, nonrecording gage at site 400 ft (122 m) north of lake outlet at present datum.

REMARKS.--Flow from Priest Lake is regulated to hold lake at heights desirable for recreation interests during summer months and storage is released for power use downstream during winter months. Storage began Aug. 9, 1950. Prior to Aug. 9, 1950, some regulation resulted from logging operations in the outlet channel. Figures given herein represent contents above gage height of about -2 ft (-0.61 m). Capacity table is based on area measured from Priest Lake quadrangle (scale 1:250,000) and reconnaissance survey of marginal areas and is only approximate.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 6.68 ft (2.036 m) June 20, 1974, contents, 207,500 acre-ft (256 hm³); minimum, -0.46 ft (-0.140 m) Jan. 5, 6, 1977, contents, 37,500 acre-ft (46.53 hm³).

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 4.25 ft (1.295 m) May 23, contents, 149,100 acre-ft (184 hm³); minimum, -0.18 ft (-0.055 m) Feb. 25, contents, 44,080 acre-ft (54.4 hm³).

Capacity table (gage height, in feet, and contents, in acre-feet)

-0.2	43,610
0.0	48,000
3.0	119,270
4.0	143,100
5.0	167,050

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.09	.59	.19	.19	-.05	-.12	.90	2.48	3.53	3.01	2.92	3.33
2	3.07	.55	.17	.18	-.03	-.14	1.02	2.63	3.49	3.06	2.94	3.33
3	3.03	.53	.18	.14	-.04	-.16	1.18	2.77	3.51	3.11	2.95	3.35
4	3.00	.49	.18	.15	-.04	-.16	1.26	2.86	3.57	3.16	2.97	3.35
5	2.98	.47	.17	.19	-.07	-.16	1.34	2.86	3.65	3.19	2.97	3.38
6	2.97	.45	.18	.19	-.06	-.17	1.38	2.86	3.72	3.21	2.98	3.38
7	2.99	.44	.16	.18	-.05	-.16	1.42	2.86	3.74	3.21	3.00	3.37
8	2.94	.41	.15	.23	-.05	-.16	1.44	2.88	3.75	3.21	3.01	3.43
9	2.83	.39	.15	.21	-.05	-.15	1.46	2.97	3.74	3.18	3.01	3.42
10	2.70	.36	.21	.19	-.06	-.15	1.48	3.08	3.68	3.15	3.01	3.43
11	2.53	.33	.20	.17	-.07	-.14	1.52	3.19	3.59	3.12	3.02	3.44
12	2.40	.30	.21	.15	-.08	-.13	1.56	3.24	3.49	3.08	2.99	3.44
13	2.27	.31	.27	.12	-.10	-.12	1.56	3.32	3.47	3.04	3.03	3.44
14	2.14	.32	.30	.14	-.10	-.13	1.55	3.42	3.44	2.99	3.03	3.43
15	2.00	.32	.35	.12	-.11	-.13	1.54	3.64	3.36	2.95	3.10	3.44
16	1.85	.27	.37	.11	-.12	-.14	1.54	3.79	3.28	2.95	3.13	3.43
17	1.71	.27	.37	.11	-.12	-.15	1.55	3.88	3.20	3.02	3.17	3.40
18	1.58	.25	.36	.07	-.13	-.15	1.56	3.93	3.18	3.07	3.18	3.39
19	1.46	.20	.36	.06	-.14	-.13	1.58	3.98	3.14	3.09	3.22	3.37
20	1.35	.16	.34	.05	-.15	-.10	1.60	4.05	3.13	3.10	3.23	3.35
21	1.24	.12	.31	.05	-.16	-.08	1.63	4.14	3.12	3.07	3.24	3.38
22	1.14	.09	.28	.04	-.16	-.03	1.66	4.24	3.14	3.05	3.24	3.36
23	1.05	.09	.28	.02	-.15	.02	1.68	4.23	3.16	3.02	3.27	3.38
24	.94	.07	.25	.00	-.16	.10	1.71	4.21	3.14	2.99	3.28	3.38
25	.89	.11	.22	-.01	-.17	.18	1.74	4.14	3.16	2.97	3.27	3.39
26	.83	.12	.20	-.02	-.16	.30	1.83	4.03	3.13	2.96	3.29	3.38
27	.75	.12	.17	-.03	-.15	.40	1.89	3.94	3.10	2.93	3.29	3.38
28	.70	.13	.16	-.04	-.12	.50	1.98	3.86	3.06	2.92	3.29	3.38
29	.67	.14	.17	-.05	---	.60	2.15	3.80	3.02	2.91	3.29	3.38
30	.64	.12	.20	-.06	---	.72	2.30	3.72	3.01	2.90	3.29	3.35
31	.61	---	.18	-.07	---	.85	---	3.61	---	2.91	3.31	---
MEAN	1.88	.28	.24	.09	-.10	.02	1.57	3.50	3.36	3.05	3.13	3.39
MAX	3.09	.59	.37	.23	-.03	.85	2.30	4.24	3.75	3.21	3.31	3.44
MIN	.61	.07	.15	-.07	-.17	-.17	.90	2.48	3.01	2.90	2.92	3.33
(†)	62680	51130	52540	46860	45490	68340	102600	133800	119500	117100	126600	127600
(‡)	-59220	-11550	+1410	-5880	-1170	+22850	+34260	+31200	-14300	-2400	+9500	+1000

CAL YR 1977............ ‡ +13400
WTR YR 1978............ ‡ +5700

† Contents, in acre-feet, at end of month.
‡ Change in contents, in acre-feet.

12394000 PRIEST RIVER NEAR COOLIN, ID

LOCATION.--Lat 48°27'07", long 116°53'58", in SE¼SW¼NE¼ sec.19, T.59 N., R.4 W., Bonner County, Hydrologic Unit 17010215, in Dickensheet campground, on left bank 190 ft (57.9 m) downstream from Dickensheet Bridge, 2.5 mi (4 km) downstream from Binarch Creek, 3 mi (4.8 km) southwest of Coolin, 5.2 mi (8.4 km) downstream from outlet of Priest Lake, and at mile 38.8 (62.4 km).

DRAINAGE AREA.--611 mi² (1,582 km²).

PERIOD OF RECORD.--October 1948 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,338.24 ft (712.70 m) National Geodetic Vertical Datum of 1929. Prior to Feb. 23, 1949, nonrecording gage at same site and datum.

REMARKS.--Records good. No diversion above station. Flow partly regulated by Priest Lake (see sta 12393000).

AVERAGE DISCHARGE.--30 years, 1,314 ft³/s (37.2 m³/s), 29.21 in/yr (742 mm/yr), 952,000 acre-ft/yr (1,174 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,900 ft³/s (252 m³/s) June 18, 1974, gage height, 8.44 ft (2.573 m); minimum observed, 26 ft³/s (0.736 m³/s) Sept. 25, 1958, gage height, 1.16 ft (0.354 m), but may have been less Sept. 11, 1953, Sept. 24, 1958, when stage was below intake.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 29, 1948, reached a stage of 8.40 ft (2.560 m) present site and datum, discharge, 8,670 ft³/s (246 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,080 ft³/s (144 m³/s) May 23, gage height, 6.60 ft (2.012 m); minimum, 112 ft³/s (3.17 m³/s) Aug. 8-9, gage height, 1.82 ft (0.555 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

1.6	76	4.0	1,400
2.0	152	5.0	2,690
2.5	315	6.0	4,190
3.0	570	7.0	5,890
3.5	930		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	532	922	573	572	444	396	1310	2890	4180	1260	244	311
2	543	915	609	564	455	392	1480	3040	4090	882	157	316
3	559	911	593	564	459	378	1590	3190	4080	673	147	276
4	496	884	587	564	453	375	1660	3320	4120	701	135	269
5	365	857	577	579	446	371	1760	3360	4200	759	128	273
6	186	834	584	604	452	368	1810	3330	4320	1100	122	280
7	188	827	577	602	453	366	1830	3350	4370	1110	118	320
8	744	804	565	605	460	369	1860	3330	4390	1100	114	360
9	1840	784	554	615	458	374	1870	3350	4390	1300	118	387
10	1870	770	570	621	456	376	1870	3510	4350	1360	122	387
11	2160	745	595	621	452	376	1880	3650	4280	1340	120	411
12	2000	717	602	614	441	382	1900	3750	4150	1320	128	440
13	1870	715	640	595	426	382	1910	3810	4090	1290	138	450
14	1740	716	666	585	421	381	1910	3910	4060	1250	140	450
15	2040	713	698	567	414	379	1910	4150	3970	1220	147	461
16	2170	691	721	550	410	379	1900	4420	3880	819	167	461
17	2030	677	719	545	405	378	1910	4540	3510	552	180	450
18	1880	663	716	540	400	379	1900	4620	2990	627	194	455
19	1750	640	706	530	395	381	1890	4670	2790	640	202	472
20	1640	607	695	519	392	387	1950	4750	2590	673	219	483
21	1530	577	684	512	388	397	2010	4850	2100	898	262	517
22	1420	549	677	508	380	414	2030	4970	2080	915	258	517
23	1320	537	665	500	379	441	2060	5040	2100	898	262	517
24	1250	543	648	492	380	526	2060	5040	2140	874	265	528
25	1170	546	628	483	375	595	2060	4970	2250	850	265	528
26	1110	556	611	473	374	656	2080	4840	2260	842	265	528
27	1060	555	595	465	377	732	2170	4720	2230	811	265	517
28	1010	559	580	460	401	821	2350	4610	2080	647	265	528
29	990	567	581	452	---	926	2560	4530	2000	589	276	528
30	974	561	595	443	---	1040	2740	4450	1800	445	291	500
31	937	---	581	440	---	1160	---	4310	---	337	299	---
TOTAL	39374	20942	19392	16784	11746	15277	58220	127270	99840	28082	6013	12920
MEAN	1270	698	626	541	420	493	1941	4105	3328	906	194	431
MAX	2170	922	721	621	460	1160	2740	5040	4390	1360	299	528
MIN	186	537	554	440	374	366	1310	2890	1800	337	114	269
AC-FT	78100	41540	38460	33290	23300	30300	115500	252400	198000	55700	11930	25630

CAL YR 1977 TOTAL 206788 MEAN 567 MAX 2170 MIN 118 AC-FT 410200
WTR YR 1978 TOTAL 455860 MEAN 1249 MAX 5040 MIN 114 AC-FT 904200

12395000 PRIEST RIVER NEAR PRIEST RIVER, ID

LOCATION.--Lat 48°12'31", long 116°54'49", in NW¼SW¼NW¼ sec.12, T.56 N., R.5 W., Bonner County, Hydrologic Unit 17010215, on right bank 500 ft (152 m) downstream from Saddler Creek, 0.4 mi (0.6 km) downstream from Lower West Branch, 2.7 mi (4.3 km) north of Priest River, and at mile 3.8 (6.1 km).

DRAINAGE AREA.--902 mi² (2,336 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1903 to April 1905, November 1910 to April 1911, May to December 1923, February 1929 to current year. Prior to October 1930, published as "at Priest River."

REVISED RECORDS.--WSP 572: 1903-5.

GAGE.--Water-stage recorder. Altitude of gage is 2,090 ft (637 m), from river-profile map. Prior to May 15, 1929, and Sept. 18, 1929, to Apr. 28, 1930, nonrecording gages at site 3 mi (4.8 km) downstream at altitude about 40 ft (12 m) lower. June 4 to Sept. 17, 1929, and Apr. 29 to Sept. 11, 1930, nonrecording gages at or near present site at present datum.

REMARKS.--Records excellent except those for periods of no gage-height record, which are fair. No diversion above station. Some regulation on tributary and, since Aug. 9, 1950, flow partly regulated by Priest Lake (see sta 12393000).

AVERAGE DISCHARGE.--50 years (1904, 1930-78), 1,672 ft³/s (47.4 m³/s), 25.17 in/yr (639 mm/yr), 1,211,000 acre-ft/yr (1,493 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,500 ft³/s (297 m³/s) May 29, 30, 1948; maximum gage height, 8.97 ft (2.73 m) May 29, 1948; minimum discharge, 165 ft³/s (4.67 m³/s) Sept. 26, 1958; minimum gage height, 0.44 ft (0.134 m) Sept. 16, 17, 18, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,320 ft³/s (179 m³/s) May 24, gage height, 6.42 ft (1.957 m); minimum, 233 ft³/s (6.60 m³/s) Aug. 10, gage height, 0.63 ft (0.192 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Dec. 25 to Jan. 3)

0.6	205	3.0	1,910
.8	280	4.0	3,000
1.0	375	5.0	4,260
1.5	680	6.5	6,370
2.0	1,040		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	676	1080	820	750	612	634	2760	3830	4930	1680	495	485
2	663	1080	850	780	613	595	2980	3950	4870	1450	330	479
3	692	1070	880	820	648	595	2950	4090	4830	936	284	462
4	683	1040	870	875	629	608	2860	4230	4880	988	270	398
5	636	1000	850	979	617	595	3000	4260	4990	1020	260	415
6	366	974	830	1060	645	589	3020	4140	5120	1170	251	408
7	285	970	810	1010	672	589	2880	4120	5190	1340	247	438
8	291	950	790	967	739	641	2830	4050	5180	1370	241	542
9	1520	930	780	986	749	680	2790	4040	5150	1370	237	583
10	1810	920	780	977	733	708	2760	4300	5090	1600	238	575
11	2150	900	820	930	709	701	2770	4470	4980	1560	240	564
12	2110	880	960	875	677	714	2750	4600	4810	1540	244	588
13	1980	860	1050	843	665	728	2710	4680	4750	1490	255	614
14	1860	840	1300	781	674	701	2680	5000	4680	1440	262	610
15	1830	840	1500	755	647	674	2630	5500	4550	1390	301	605
16	2290	840	1600	747	634	680	2620	5960	4430	1340	456	624
17	2140	830	1400	735	615	701	2640	6080	4220	820	413	601
18	1990	820	1200	717	615	784	2590	6090	3620	928	400	599
19	1870	800	1100	708	602	879	2540	6050	3200	958	379	599
20	1750	760	1000	696	595	940	2670	6040	3140	884	383	628
21	1640	700	970	687	602	1020	2760	6100	2570	976	393	661
22	1540	650	972	699	608	1120	2740	6210	2390	1100	419	706
23	1460	650	945	675	621	1270	2740	6260	2390	1080	438	687
24	1380	660	868	669	628	1690	2710	6280	2380	1050	427	680
25	1310	660	840	657	621	1810	2680	6210	2500	1020	421	680
26	1250	680	820	650	615	1800	2720	5950	2560	996	416	676
27	1180	730	800	641	621	1900	2880	5730	2490	994	417	669
28	1130	770	780	630	647	2050	3240	5700	2410	876	411	659
29	1110	780	770	625	---	2260	3550	5490	2280	792	408	663
30	1160	800	760	606	---	2450	3720	5320	2190	704	415	658
31	1120	---	750	597	---	2640	---	5150	---	542	445	---
TOTAL	41872	25464	29465	24127	18053	33746	85170	159880	116800	35404	10796	17536
MEAN	1351	849	950	778	645	1089	2839	5157	3893	1142	348	585
MAX	2290	1080	1600	1060	749	2640	3720	6280	5190	1680	495	706
MIN	285	650	750	597	595	589	2540	3830	2190	542	237	398
AC-FT	83050	50510	58440	47860	35810	66940	168900	317100	231700	70220	21410	34780

CAL YR 1977 TOTAL 277035 MEAN 759 MAX 2290 MIN 220 AC-FT 549500
WTR YR 1978 TOTAL 598313 MEAN 1639 MAX 6280 MIN 237 AC-FT 1187000

12395000 PRIEST RIVER NEAR PRIEST RIVER, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
NOV 03...	1345	1070	60	--	4.5	5.0	--	--	--
DEC 21...	1315	943	41	--	1.0	2.5	--	--	--
FEB 14...	1250	645	--	--	.0	1.0	--	--	--
MAR 30...	1340	2480	42	--	13.5	6.5	--	--	--
MAY 12...	0900	4640	51	--	9.0	7.0	--	--	--
JUL 20...	1400	890	58	7.5	20.0	21.0	30	2	8.7
SEP 06...	1030	384	61	8.1	17.0	18.0	28	0	8.2

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
NOV 03...	--	--	--	--	--	--	--	--	--
DEC 21...	--	--	--	--	--	--	--	--	--
FEB 14...	--	--	--	--	--	--	--	--	--
MAR 30...	--	--	--	--	--	--	--	--	--
MAY 12...	--	--	--	--	--	--	--	--	--
JUL 20...	2.1	2.1	13	.2	.7	34	0	28	2.3
SEP 06...	1.9	3.0	18	.2	.7	34	0	28	3.7

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
NOV 03...	--	--	--	--	--	--	--	--
DEC 21...	--	--	--	--	--	--	--	--
FEB 14...	--	--	--	--	--	--	--	--
MAR 30...	--	--	--	--	--	--	--	--
MAY 12...	--	--	--	--	--	--	--	--
JUL 20...	.4	.1	11	44	.06	106	.02	.02
SEP 06...	.4	.1	11	46	.06	47.7	.01	.01

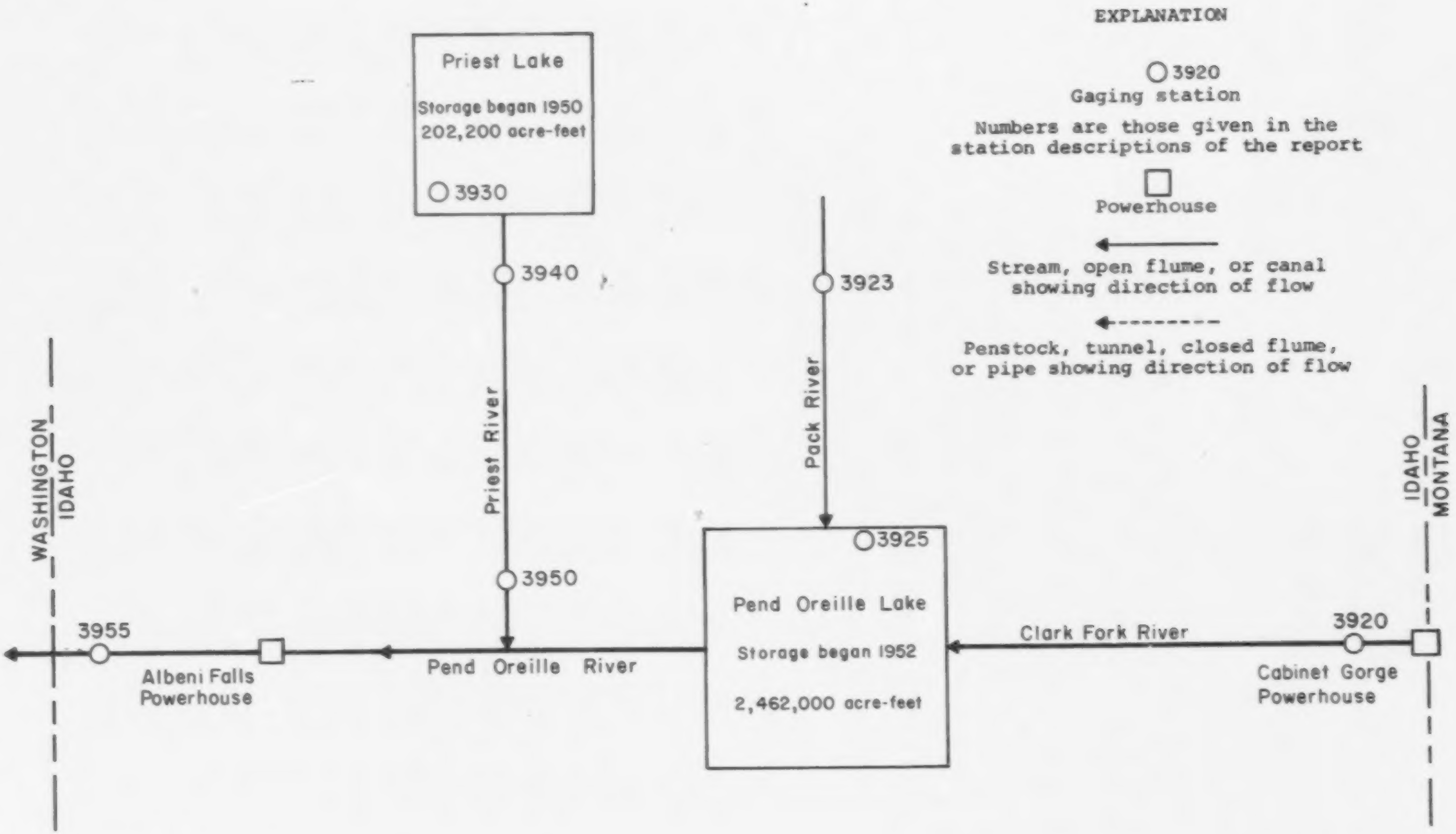
EXPLANATION
3920
Gaging station
Numbers are those given in the station descriptions of the report
Powerhouse
Stream, open flume, or canal showing direction of flow
Penstock, tunnel, closed flume, or pipe showing direction of flow
Priest Lake
Storage began 1950
202,200 acre-feet
3930
3940
Priest River
3950
3923
Pack River
3925
Pend Oreille Lake
Storage began 1952
2,462,000 acre-feet
IDAHO
MONTANA
3920
Clark Fork River
Cabinet Gorge Powerhouse
Pend Oreille River
Albeni Falls Powerhouse
3955
WASHINGTON
IDAHO

FIGURE 11.--Gaging stations in Pend Oreille River basin.

12395500 PEND OREILLE RIVER AT NEWPORT, WA

LOCATION.--Lat 48°10'56", long 117°02'00", in SE¼SW¼SW¼ sec.24, T.56 N., R.6 W. (Boise meridian), Bonner County, Hydrologic Unit 17010216, on left bank at Newport, 0.2 mi (0.3 km) upstream from bridge on U.S. Highway 2, 0.2 mi (0.3 km) east of Idaho-Washington State line, 1.6 mi (2.6 km) downstream from Albeni Falls Dam, and at mile 88.5 (142.4 km).

DRAINAGE AREA.--24,200 mi^2 (62,700 km^2), approximately.

PERIOD OF RECORD.--June 1903 to September 1941, October 1952 to current year. Prior to October 1921, published as Clark Fork at Newport, Wash., October 1921 to September 1937, as Clark Fork at Priest River, Idaho, and October 1937 to September 1941, as Pend Oreille River at Priest River, Idaho.

REVISED RECORDS.--WSP 532: 1903-11.

GAGE.--Water-stage recorder. Datum of gage is 1,999.7 ft (609.509 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 22, 1928, nonrecording gages at Priest River, Newport, or Metaline Falls at various datums (see description, WSP 532, p. 92). Sept. 22, 1928, to Sept. 30, 1935, at datum 2,040.14 ft above National Geodetic Vertical Datum, and Oct. 1, 1935, to Sept. 30, 1941, at datum 2,000 ft (609.6 m) above National Geodetic Vertical Datum, water-stage recorder at Priest River. Since December 1952, auxiliary water-stage recorder 2.74 mi (4.4 km) downstream from base gage.

REMARKS.--Records good. Flow regulated at Albeni Falls Dam and affected by storage in Pend Oreille Lake (see sta 12392500), Flathead Lake, Hungry Horse Reservoir, and several smaller reservoirs. Diversions above station for irrigation of about 354,000 acres (143,000 hm^2).

AVERAGE DISCHARGE.--64 years (1904-41, 1953-78), 26,020 ft^3/s (737 m^3/s), 18,850,000 acre-ft/yr (23.2 km^3/yr). The figure published in the 1977 report was in error; the correct figure is 63 years (1904-41, 1953-77), 26,000 ft^3/s (736 m^3/s), 18,840,000 acre-ft/yr (23,200 hm^3/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 136,000 ft^3/s (3,850 m^3/s) June 15, 1913, June 21, 1933, June 12, 1972; minimum, 1,280 ft^3/s (36 m^3/s) Sept. 1, 1961.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1894 reached a stage of about 64.0 ft (19.51 m) present site and datum, discharge, about 200,000 ft^3/s (5,660 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 65,600 ft^3/s (1858 m^3/s) May 30; maximum gage height, 42.40 ft (12.923 m) June 1; minimum discharge, 6,880 ft^3/s (195 m^3/s) Aug. 25; minimum gage height, 31.95 ft (9.738 m) Aug. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17500	26200	14500	13900	17800	19200	27000	33100	64100	54400	17500	14700
2	17400	26100	18400	13700	17900	18900	27000	31800	63800	55200	17000	15800
3	19400	26500	19600	13800	19500	18200	29700	31400	63700	52900	16600	15700
4	21600	26100	20100	14600	20100	17900	31300	34900	62800	48900	17400	14800
5	21700	26200	21100	16800	19100	15500	31200	43000	61800	49800	18000	14700
6	21900	26200	22100	17800	19200	13600	33200	47100	61700	49600	18000	14500
7	19800	26900	22000	17500	19300	14900	34300	46700	61800	51000	16700	15100
8	16400	26500	20900	17700	19500	17400	32200	44900	62000	52300	15600	16100
9	16400	26400	18100	19300	19500	15700	32700	42700	61500	51400	13300	15000
10	19700	26900	16900	19500	19000	14200	32700	42400	62400	49800	10600	15000
11	21600	27300	16700	21100	18900	14000	32300	43600	62700	47200	12100	15300
12	21700	26500	18100	21700	19000	13900	31900	44800	61300	46800	12000	14200
13	21700	26500	21100	19900	19000	15300	31800	45100	57200	44000	12300	12200
14	23200	27200	21600	17400	20200	17900	30400	45400	51300	37100	13800	12900
15	18500	26900	24400	17500	20600	17800	30300	46700	49200	30500	12400	14000
16	13100	26200	25900	17600	19900	17800	31300	49000	48400	30600	11100	14000
17	19200	26700	26100	18200	20100	17400	31400	51900	48400	31100	12100	14000
18	24800	25300	25200	19900	20400	17600	33200	53600	48800	30000	12200	14600
19	25800	25500	23700	19800	19400	17600	35400	54500	46200	27000	11100	19000
20	26000	22600	22800	19700	19200	19500	35300	55500	43500	29700	12300	22500
21	26100	22300	22700	19600	17600	18400	33400	56100	42800	36200	13600	22600
22	25900	21600	20700	19500	17000	18300	29200	56900	42200	36000	12300	22200
23	25900	19200	18600	19000	17100	19900	33600	58400	43900	34900	11200	22100
24	27500	17700	17300	17400	18300	21300	36700	59300	46000	28900	10000	22400
25	28300	15900	17500	17100	18100	22300	38000	59000	46100	24100	9260	22600
26	28300	14700	17600	17300	18000	23500	37900	59600	52200	20800	10800	22500
27	25000	14500	15700	17300	18700	22100	37900	59400	59900	18100	11000	22300
28	25500	14700	13100	17400	19000	24800	34900	59400	62100	18800	13500	22300
29	26100	14700	13000	17900	---	25700	29300	59200	60600	19900	15500	22400
30	26200	14600	13200	19900	---	25900	29500	61600	57300	20000	13600	22500
31	26500	---	13900	19900	---	26600	---	64700	---	19100	13600	---
TOTAL	698700	694100	602600	559700	531400	583100	975000	1541700	1655700	1146100	416460	528000
MEAN	22540	23140	19440	18050	18980	18810	32500	49730	55190	36970	13430	17600
MAX	28300	27300	26100	21700	20600	26600	38000	64700	64100	55200	18000	22600
MIN	13100	14500	13000	13700	17000	13600	27000	31400	42200	18100	9260	12200
AC-FT	1386000	1377000	1195000	1110000	1054000	1157000	1934000	3058000	3284000	2273000	826000	1047000

CAL YR 1977 TOTAL 5346960 MEAN 14650 MAX 28300 MIN 3140 AC-FT 10610000
WTR YR 1978 TOTAL 9932560 MEAN 27210 MAX 64700 MIN 9260 AC-FT 19700000

12411000 COEUR D'ALENE RIVER ABOVE SHOSHONE CREEK, NEAR PRICHARD, ID

LOCATION.--Lat 47°42'30", long 115°58'35", in NE¼SW¼ sec.5, T.50 N., R.4 E., Shoshone County, Hydrologic Unit 17010301, in Coeur d'Alene National Forest, on left bank at Shoshone Creek ranger station, 0.1 mi (0.2 km) downstream from Uranus Creek, 0.5 mi (0.8 km) upstream from Shoshone Creek, 3.5 mi (5.6 km) north of Prichard, and 200.0 mi (322 km) upstream from mouth of Spokane River.

DRAINAGE AREA.--335 mi^2 (868 km^2).

PERIOD OF RECORD.--December 1950 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,485 ft (757 m), from river-profile map.

REMARKS.--Records good. No regulation or diversion above station.

AVERAGE DISCHARGE.--27 years (1951-78), 732 ft^3/s (20.7 m^3/s), 29.68 in/yr (754 mm/yr), 530,300 acre-ft/yr (654 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,000 ft^3/s (623 m^3/s) Jan. 15, 1974, gage height, 11.60 ft (3.536 m); minimum discharge, 34 ft^3/s (0.96 m^3/s) Dec. 26, 1952, gage height, 0.69 ft (0.210 m); minimum gage height, 0.58 ft (0.177 m) Sept. 12-16, 1973.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 3,600 ft^3/s (102 m^3/s) and maximum (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)	Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)
Dec. 3	0500	3890	110	4.76	1.451	Mar. 31	0930	*4860	138	5.34	1.628
Jan. 5	1315	ice jam		*7.40	2.256	May 16	0715	4050	115	4.83	1.472

Minimum discharge, 72 ft^3/s (2.04 m^3/s) Oct. 17-19, gage height, 0.60 ft (0.183 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 21-27, Dec. 26-27, Jan. 2-6, Feb. 1-2, 14-15)

0.6	68	2.5	1,040
.8	117	3.0	1,500
1.0	177	4.0	2,680
1.5	385	5.5	5,000
2.0	670		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	104	188	665	434	230	360	4280	2210	1030	274	141	169
2	93	326	1650	390	250	340	3480	2140	1010	274	138	155
3	85	282	3340	410	274	320	2910	2100	1000	274	135	142
4	79	211	2070	580	274	340	2450	1890	975	336	132	136
5	76	175	1390	800	270	330	2200	1600	934	336	132	133
6	77	156	1090	920	287	310	2000	1360	882	279	126	149
7	78	156	916	746	313	300	1850	1240	811	262	123	180
8	86	156	732	616	380	390	1700	1230	742	266	123	194
9	93	144	634	580	429	530	1600	1340	698	279	120	189
10	92	136	604	545	445	570	1500	1950	667	258	117	174
11	84	131	653	517	440	600	1650	2230	614	250	114	166
12	80	128	1010	479	407	610	1780	1970	568	239	126	161
13	77	150	1390	434	385	600	1680	1850	551	224	159	160
14	77	271	2260	385	380	570	1560	2140	528	213	153	154
15	75	422	2920	370	370	530	1430	3150	500	205	188	151
16	75	341	2450	356	360	500	1410	3920	479	202	404	148
17	75	278	2110	346	341	495	1430	3300	451	227	279	144
18	72	238	1590	332	327	574	1370	2790	423	224	323	142
19	72	198	1210	318	318	955	1330	2470	401	216	265	138
20	75	158	986	304	309	1150	1460	2260	385	195	231	136
21	75	115	863	300	304	1420	1660	2080	365	184	246	133
22	75	125	848	309	300	1610	1600	1920	351	178	217	135
23	75	135	746	274	309	2130	1470	1650	356	175	202	133
24	75	145	610	262	313	3270	1320	1450	341	168	187	130
25	82	190	545	291	318	3140	1280	1260	341	162	173	126
26	93	280	520	283	351	2650	1650	1120	332	159	164	124
27	89	390	505	270	370	2940	2520	1050	309	162	156	121
28	82	517	490	266	370	3360	3010	1110	296	159	150	120
29	90	610	659	262	---	3660	2770	1130	291	153	144	119
30	147	753	586	250	---	4270	2500	1130	283	147	141	117
31	218	---	484	243	---	4820	---	1080	---	144	147	---
TOTAL	2726	7505	37026	12872	9424	43644	58850	58120	16914	6824	5456	4379
MEAN	87.9	250	1194	415	337	1408	1962	1875	564	220	176	146
MAX	218	753	3340	920	445	4820	4280	3920	1030	336	404	194
MIN	72	115	484	243	230	300	1280	1050	283	144	114	117
AC-FT	5410	14890	73440	25530	18690	86570	116700	115300	33550	13540	10820	8690

CAL YR 1977 TOTAL 119255 MEAN 327 MAX 3340 MIN 41 AC-FT 236500
WTR YR 1978 TOTAL 263740 MEAN 723 MAX 4820 MIN 72 AC-FT 523100

12413000 COEUR D'ALENE RIVER AT ENAVILLE, ID

LOCATION.--Lat 47°34'20", long 116°15'10", in NW¼NE¼ sec.30, T.49 N., R.2 E., Shoshone County, Hydrologic Unit 17010301, on right bank 800 ft (244 m) upstream from highway bridge, 0.2 mi (0.3 km) northwest of Enaville Post Office, 1.1 mi (1.8 km) upstream from South Fork, 3.5 mi (5.6 km) downstream from North Fork, and 168.9 mi (271.8 km) upstream from mouth of Spokane River.

DRAINAGE AREA.--895 mi² (2,320 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1911 to April 1913 (fragmentary), October 1939 to current year. Published as North Fork of Coeur d'Alene River at Enaville 1911-13.

REVISED RECORDS.--WSP 1396: 1945.

GAGE.--Water-stage recorder. Datum of gage is 2,100.00 ft (640.080 m) National Geodetic Vertical Datum of 1929. Mar. 3, 1911, to Apr. 12, 1913, nonrecording gage at site 0.2 mi (0.3 km) downstream at different datum. Oct. 18 to Dec. 22, 1939, nonrecording gage at present site and datum.

REMARKS.--Records good. No appreciable regulation or diversion above station.

AVERAGE DISCHARGE.--39 years (1939-78), 1,948 ft³/s (55.2 m³/s), 29.55 in/yr (751 mm/yr), 1,411,000 acre-ft/yr (1,740 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 61,000 ft³/s (1,728 m³/s) Jan. 16, 1974, gage height, 81.32 ft (24.786 m); minimum, 104 ft³/s (2.94 m³/s) Dec. 26, 1952, gage height, 60.10 ft (18.318 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in December 1933 reached a stage of 79.47 ft (24.2 m) and that in April 1938 a stage of 78.16 ft (23.823 m), from local information concerning high-water marks.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 8,000 ft³/s (227 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 3	0800	*12200	346	69.75	21.260	Mar. 31	1730	12100	343	69.63	21.223
Dec. 16	0445	9830	278	68.71	20.943	May 16	1515	8940	253	68.18	20.781

Minimum discharge, 182 ft³/s (5.15 m³/s) Oct. 22-24, gage height, 62.12 ft (18.934 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Feb. 10 to Sept. 30; stage-discharge relation affected by ice Dec. 27-29, Dec. 31 to Jan. 2)

62.1	160	64.0	1,850
62.3	260	65.0	3,200
62.6	465	67.0	6,400
63.2	980	70.0	12,700

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	301	507	2140	1500	753	1320	11000	4970	2990	817	391	427
2	275	685	5790	1450	819	1200	9140	4760	2950	799	383	412
3	254	749	11200	1600	848	1110	7660	4760	3020	799	376	376
4	236	591	7020	1860	866	1160	6470	4410	3080	954	362	362
5	223	496	4640	2350	889	1160	5930	3650	3060	1000	362	348
6	215	436	3560	3270	1030	1100	5450	3300	2980	854	348	369
7	221	423	2880	3070	1290	1040	4970	2960	2760	790	341	420
8	225	422	2280	1790	1650	1160	4490	2850	2510	790	335	488
9	241	401	1920	1430	2000	1670	4110	3030	2320	763	328	511
10	242	376	1770	1330	1960	2000	3920	4200	2160	754	322	473
11	231	356	1810	1250	1820	2180	4110	5130	1930	727	315	457
12	218	346	2910	1200	1640	2230	4270	4710	1720	692	328	435
13	211	387	4490	1140	1460	2140	4060	4380	1640	648	398	420
14	207	640	8250	1130	1420	2000	3800	4750	1580	614	398	405
15	203	457	9140	1110	1340	1790	3530	6420	1480	588	457	391
16	200	420	9180	1080	1240	1660	3460	8650	1410	580	808	383
17	196	780	6650	1060	1160	1630	3540	8310	1310	614	772	369
18	192	671	4950	1030	1100	1840	3240	7060	1230	614	754	362
19	189	568	3770	991	1050	3050	3200	6070	1180	588	736	362
20	188	412	2960	963	1010	3920	3360	5640	1140	557	640	348
21	188	307	2480	935	991	4480	3750	5350	1100	526	640	341
22	185	354	2350	972	972	4950	3680	5160	1060	503	588	341
23	183	408	2140	944	1010	6220	3480	4010	1050	496	557	338
24	184	411	1810	899	1080	8770	3140	4050	1020	480	518	330
25	205	452	1540	847	1120	8930	3000	3530	1020	465	488	321
26	225	1240	1470	867	1170	7390	3590	3070	991	450	457	315
27	234	1690	1210	827	1250	7660	5260	2790	926	450	435	309
28	229	1630	1030	802	1330	8610	6330	3010	881	442	412	306
29	239	1960	1790	792	---	9160	6050	3170	863	427	398	302
30	330	2440	2940	775	---	10100	5450	3320	836	412	383	296
31	531	---	1790	751	---	11800	---	3160	---	398	391	---
TOTAL	7201	22025	117860	40015	34268	123450	143540	141430	52197	19591	14421	11317
MEAN	232	734	3802	1291	1224	3982	4785	4562	1740	632	465	377
MAX	531	2440	11200	3270	2000	11800	11000	8650	3080	1000	808	511
MIN	183	307	1030	751	753	1040	3000	2790	836	398	315	296
CFSM	.26	.82	4.25	1.44	1.37	4.45	5.35	5.10	1.94	.71	.52	.42
IN.	.30	.92	4.90	1.66	1.42	5.13	5.97	5.88	2.17	.81	.60	.47
AC-FT	14280	43690	233800	79370	67970	244900	284700	280500	103500	38860	28600	22450

CAL YR 1977 TOTAL 342223 MEAN 938 MAX 11200 MIN 110 CFSM 1.05 IN 14.22 AC-FT 678800
WTR YR 1978 TOTAL 727315 MEAN 1993 MAX 11800 MIN 183 CFSM 2.23 IN 30.23 AC-FT 1443000

12413000 COEUR D'ALENE RIVER AT ENAVILLE, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972-73, 1975 to current year.

REMARKS.--Miscellaneous chemical data published for water year 1974.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, CHEM-ICAL (LOW LEVEL) (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	HARD-NESS (MG/L AS CACO3)
OCT 18...	0845	192	*53	6.5	2.5	10.0	1	9.3	89	12	K1	--
NOV 22...	1130	362	*50	*7.3	-2.5	1.5	1	12.2	94	2	K1	24
DEC 13...	1030	4300	35	6.9	3.0	4.0	3	11.7	97	0	K6	--
JAN 24...	0800	850	45	6.8	.0	.0	1	6.8	51	11	K1	--
FEB 14...	0930	1410	50	6.4	2.0	3.0	1	12.6	102	11	K5	--
MAR 21...	1030	4440	43	6.7	11.0	6.5	1	11.8	103	6	<1	--
APR 18...	0930	3370	42	6.5	12.0	5.0	1	11.9	101	3	<1	--
MAY 23...	1100	4620	35	6.5	14.5	9.5	1	11.2	105	44	K2	20
JUN 22...	1000	1080	*42	7.0	22.5	16.0	0	9.2	101	7	<1	--
JUL 19...	0900	569	49	6.8	17.0	13.5	3	9.0	93	7	K7	--
AUG 22...	0930	556	53	7.1	15.5	14.0	2	8.4	87	9	K6	--
SEP 19...	0930	370	52	7.4	6.5	11.0	1	10.9	107	8	K5	28

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
OCT 18...	--	--	--	--	--	--	--	32	0	26	--	--
NOV 22...	--	5.9	2.3	1.0	8	.1	.4	--	0	--	3.4	.7
DEC 13...	--	--	--	--	--	--	--	22	0	18	--	--
JAN 24...	--	--	--	--	--	--	--	24	0	20	--	--
FEB 14...	--	--	--	--	--	--	--	24	0	20	--	--
MAR 21...	--	--	--	--	--	--	--	24	0	20	--	--
APR 18...	--	--	--	--	--	--	--	24	0	20	--	--
MAY 23...	0	6.1	1.1	1.0	10	.1	.3	27	0	22	3.2	.3
JUN 22...	--	--	--	--	--	--	--	39	0	32	--	--
JUL 19...	--	--	--	--	--	--	--	30	0	25	--	--
AUG 22...	--	--	--	--	--	--	--	29	0	24	--	--
SEP 19...	0	7.4	2.2	1.8	12	.2	.4	34	0	28	3.0	.2

* Not a field determination.
K Results based on count outside ideal colony count range.

12413000 COEUR D'ALENE RIVER AT ENAVILLE, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 18...	9.6	24	.03	12.4	8	.01	.02	.15	.17	.18	.80	.02
NOV 22...	9.1	23	.03	22.5	1	.15	.00	.03	.03	.18	.80	.01
DEC 13...	9.6	29	.04	337	15	.12	.01	.13	.14	.26	1.2	.00
JAN 24...	9.6	30	.04	68.8	4	.01	.01	.04	.05	.06	.27	.01
FEB 14...	10	32	.04	122	13	.01	.01	.01	.02	.03	.13	.01
MAR 21...	10	26	.04	312	3	.03	.00	.05	.05	.08	.35	.01
APR 18...	9.6	20	.03	182	4	.00	.01	1.9	1.9	1.9	8.4	.00
MAY 23...	7.8	24	.03	299	4	.03	.01	.07	.08	.11	.49	.00
JUN 22...	10	24	.03	70.0	1	.04	.01	.15	.16	.20	.89	.01
JUL 19...	10	199	.27	306	4	.25	.01	.18	.19	.44	1.9	.17
AUG 22...	20	30	.04	45.0	2	.01	.00	.16	.16	.17	.75	.02
SEP 19...	9.9	35	.05	35.0	5	.05	.00	.40	.40	.45	2.0	.00

DATE	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	OIL AND GREASE (MG/L)
OCT 18...	0	<10	10	<10	0	<100	.0	0	10	.5	0
NOV 22...	1	6	0	2	50	18	.0	0	0	.3	0
DEC 13...	0	8	20	2	110	50	.1	0	30	1.5	0
JAN 24...	0	3	0	5	50	20	.1	0	20	.5	0
FEB 14...	1	25	0	1	10	88	.3	0	20	6.3	0
MAR 21...	1	0	10	9	120	0	.0	1	40	1.6	0
APR 18...	0	7	10	3	40	130	.0	0	10	5.8	0
MAY 23...	3	2	0	6	100	4	.1	0	20	.9	0
JUN 22...	0	10	0	8	170	5	.2	0	30	.5	0
JUL 19...	10	39	0	8	1400	78	.0	0	3600	.4	0
AUG 22...	1	5	0	9	280	43	.0	0	70	1.3	0
SEP 19...	1	7	0	4	110	43	.1	0	60	11	0

12413140 PLACER CREEK AT WALLACE, ID

LOCATION.--Lat 47°27'50", long 115°56'10", in NE¼SW¼ sec.34, T.48 N., R.4 E., Shoshone County, Hydrologic Unit 17010302, on right bank about 400 ft (122 m) upstream from county road bridge, 0.3 mi (0.5 km) downstream from West Fork, 0.4 mi (0.6 km) south of Wallace city limits, and at mile 1.0 (1.6 km).

DRAINAGE AREA.--14.9 mi² (38.6 km²).

PERIOD OF RECORD.--November 1967 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,840 ft (866 m), from topographic map.

REMARKS.--Records fair. Water for town of Wallace is diverted above the station.

AVERAGE DISCHARGE.--10 years, 40.4 ft³/s (1.14 m³/s), 36.82 in/yr (935 mm/yr), 29,270 acre-ft/yr (36.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,200 ft³/s (34.0 m³/s) Jan. 15, 1974, gage height, 4.71 ft (1.44 m); minimum, 1.5 ft³/s (42 dm³/s) Sept. 24, 1978; minimum gage height, 0.83 ft (0.25 m) Sept. 19, 1974.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 23, 1964, estimated at 1,300 ft³/s (36.8 m³/s) by Idaho Department of Highways on basis of observed depths in concrete flume downstream. Flood in December 1933 reported slightly higher than 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 175 ft³/s (4.96 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 2	2215	*386	10.9	3.57	1.088	Mar. 31	0030	224	6.34	3.06	0.933
Dec. 14	0530	213	6.03	3.04	.927	May 22	0530	213	6.03	2.86	.872

Minimum discharge, 1.5 ft³/s (0.042 m³/s) Sept. 24, gage height, 1.14 ft (0.347 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 20 to Dec. 1, May 22 to June 23, Sept. 9-30;
stage-discharge relation affected by ice Nov. 21-23, Jan. 1-3)

Oct. 1 to Dec. 2				Dec. 3 to Sept. 30			
1.6	3.8	2.5	55	0.9	1.6	1.6	16.8
1.8	7.9	2.8	100	1.0	2.4	1.9	34.8
2.0	14.8	3.1	170	1.1	3.4	2.2	65.5
2.2	26.1	3.4	270	1.2	4.8	2.6	126
				1.4	9.2	3.1	254

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.5	13	29	18	14	19	218	97	76	22	9.2	4.7
2	4.9	21	179	19	15	18	196	110	88	20	9.2	4.1
3	4.9	11	242	20	15	18	117	112	97	21	9.0	3.8
4	5.1	9.0	119	23	15	18	96	105	103	25	8.7	3.3
5	5.3	8.4	75	25	16	17	85	91	103	21	8.5	3.3
6	5.1	8.2	59	31	20	16	79	80	97	19	8.0	3.8
7	5.9	9.0	52	27	24	16	72	80	87	19	8.0	4.5
8	6.5	7.9	43	26	31	22	66	84	73	18	7.7	5.0
9	7.0	7.2	38	26	32	26	61	97	61	17	7.5	3.4
10	6.3	7.0	37	25	29	28	62	145	49	17	7.2	3.7
11	5.9	6.8	52	25	27	27	69	152	38	16	7.5	3.4
12	5.7	6.8	87	23	24	29	68	119	33	16	9.9	3.1
13	5.9	7.9	112	22	23	28	63	113	35	15	12	2.8
14	5.7	14	188	22	21	27	61	139	35	14	9.0	2.5
15	5.7	15	183	21	20	25	61	165	33	15	12	3.0
16	5.7	11	124	21	19	25	62	154	32	15	11	2.8
17	5.7	9.6	97	20	18	26	61	124	31	15	9.5	2.4
18	5.7	8.8	77	19	18	36	58	113	30	14	11	2.2
19	5.9	7.9	57	19	17	54	58	130	28	13	8.5	2.1
20	5.9	6.8	46	18	17	56	67	150	28	13	9.0	1.9
21	5.5	5.8	43	17	16	64	71	173	27	12	8.5	1.9
22	5.3	5.9	39	18	16	77	66	180	25	11	9.0	1.8
23	5.3	6.0	36	16	16	105	62	119	25	12	8.0	1.8
24	5.3	6.3	31	16	18	121	59	100	24	11	6.5	2.3
25	9.9	15	30	16	18	105	66	88	23	11	5.8	3.7
26	11	42	28	16	18	106	97	80	22	10	5.6	4.0
27	7.9	29	26	15	18	122	139	79	20	9.9	5.2	4.2
28	7.2	22	25	15	19	147	136	88	24	9.9	4.7	4.5
29	9.0	34	25	15	---	183	110	94	23	10	4.5	4.4
30	14	35	24	14	---	236	97	86	22	9.9	4.2	4.5
31	12	---	22	14	---	236	---	75	---	9.2	4.8	---
TOTAL	206.7	397.3	2225	622	554	2033	2583	3530	1392	460.9	249.2	98.9
MEAN	6.67	13.2	71.8	20.1	19.8	65.6	86.1	114	46.4	14.9	8.04	3.30
MAX	14	42	242	31	32	236	218	180	103	25	12	5.0
MIN	4.9	5.8	22	14	14	16	58	75	20	9.2	4.2	1.8
CFSM	.45	.89	4.82	1.35	1.33	4.40	5.78	7.65	3.11	1.00	.54	.22
IN.	.52	.99	5.55	1.55	1.38	5.08	6.45	8.81	3.48	1.15	.62	.25
AC-FT	410	788	4410	1230	1100	4030	5120	7000	2760	914	494	196

CAL YR 1977 TOTAL 6307.9 MEAN 17.3 MAX 242 MIN 1.6 CFSM 1.16 IN 15.75 AC-FT 12510
WTR YR 1978 TOTAL 14352.0 MEAN 39.3 MAX 242 MIN 1.8 CFSM 2.64 IN 35.83 AC-FT 28470

12413150 SOUTH FORK COEUR D'ALENE RIVER AT SILVERTON, ID

LOCATION.--Lat 47°29'29", long 115°57'12", in SW¼NW¼SE¼ sec.21, T.48 N., R.4 E., Shoshone County, Hydrologic Unit 17010302, on upstream side of bridge at the off ramp of U.S. Highway I-90 at Silverton, 700 ft (213 m) downstream from Lake Creek, and at mile 17.4 (28.0 km).

DRAINAGE AREA.--108 mi^2 (280 km^2). Area at site used prior to Sept. 1, 1976, 103 m^2 (267 km^2).

PERIOD OF RECORD.--November 1967 to current year.

GAGE.--Nonrecording and crest-stage gages. Datum of gage is 2,641.48 ft (805.1 m) National Geodetic Vertical Datum of 1929 (levels by Idaho Department of Transportation. Prior to Sept. 1, 1976, at site 1,100 ft (335 m) upstream at different datum. September 1976 to June 7, 1978, at datum 1 ft (0.3 m) higher.

REMARKS.--Records fair. Some flow is diverted through smelters and returned to stream above station.

AVERAGE DISCHARGE.--10 years, 261 ft^3/s (7.39 m^3/s), 32.82 in/yr (834 mm/yr), 189,100 acre-ft/yr (233 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,300 ft^3/s (122 m^3/s) Jan. 16, 1974, gage height, 10.80 ft (3.29 m); minimum daily, 31 ft^3/s (0.88 m^3/s) Jan. 13, 1975; minimum gage height, 2.85 ft (0.87 m) Oct. 7, 8, Dec. 31, 1974 (site and datum then in use).

EXTREMES FOR CURRENT YEAR.--Maximum observed discharge, 1,090 ft^3/s (30.9 m^3/s) May 22, gage height, 8.04 ft (2.451 m); minimum observed, 40 ft^3/s (1.133 m^3/s) Oct. 22-23; minimum gage height, 4.14 ft (1.26 m) Sept. 27.

Rating tables(gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used July 5 to Aug. 20; stage-discharge relation affected by ice
Nov. 21, 25, Jan. 1)

Oct. 1 to June 7				June 8 to Sept. 30			
4.8	30	6.0	201	4.1	50	5.5	350
5.0	42	6.5	375	4.5	98	6.0	560
5.2	60	7.0	655	5.0	198	7.0	1,070
5.6	114	8.1	1,120				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	74	165	95	91	114	1070	705	560	268	108	80
2	50	156	574	106	98	98	1020	805	655	262	104	76
3	50	101	870	138	101	88	805	755	805	268	98	75
4	49	85	528	167	103	106	655	705	971	268	100	74
5	48	80	354	163	103	106	560	605	1010	253	101	75
6	46	75	308	191	123	106	515	515	1040	229	97	79
7	48	80	280	142	123	106	470	515	966	219	97	81
8	49	71	234	144	152	123	425	515	880	221	92	85
9	52	68	214	142	159	138	385	605	835	201	91	75
10	48	66	208	142	167	146	385	655	735	211	90	88
11	48	66	253	132	148	156	425	865	635	198	90	79
12	47	62	322	132	135	159	385	705	560	193	85	79
13	45	68	371	132	128	152	385	845	528	184	106	78
14	45	80	665	132	111	152	385	745	506	174	92	75
15	45	94	750	132	116	146	350	890	434	165	125	70
16	45	87	600	123	114	140	385	795	417	165	103	74
17	44	74	443	123	109	142	425	755	382	165	108	69
18	44	66	364	123	103	167	425	705	401	165	109	69
19	42	57	287	114	104	237	350	730	420	152	95	66
20	43	47	247	119	112	265	385	916	417	154	94	66
21	42	44	234	111	103	312	405	949	393	152	98	67
22	40	46	221	116	98	410	385	1090	397	150	130	67
23	40	49	214	106	106	538	385	845	393	152	94	64
24	53	55	184	106	109	705	350	740	374	154	94	66
25	60	68	178	105	106	630	385	605	374	148	92	64
26	71	227	174	106	114	538	560	510	360	144	84	61
27	56	163	142	98	114	655	855	515	322	144	85	59
28	50	148	138	103	114	755	905	582	298	108	84	60
29	56	232	163	103	---	805	805	705	301	109	84	60
30	79	201	148	98	---	1020	755	630	294	111	81	61
31	80	---	123	95	---	1020	---	582	---	109	81	---
TOTAL	1574	2790	9956	3850	3264	10235	15980	22134	16663	5596	2992	2142
MEAN	50.8	93.0	321	124	117	330	533	714	555	181	96.5	71.4
MAX	80	232	870	191	167	1020	1070	1090	1040	268	130	88
MIN	40	44	123	95	91	88	350	510	294	108	81	59
CFSM	.49	.90	3.12	1.20	1.14	3.20	5.18	6.93	5.39	1.76	.94	.69
IN.	.57	1.01	3.60	1.34	1.18	3.70	5.77	7.99	6.02	2.02	1.08	.77
AC-FT	3120	5530	19750	7640	6470	20300	31700	43900	33050	11100	5930	4250

CAL YR 1977 TOTAL 48231 MEAN 132 MAX 870 MIN 34 CFSM 1.28 IN 17.42 AC-FT 95670
WTR YR 1978 TOTAL 97176 MEAN 266 MAX 1090 MIN 40 CFSM 2.58 IN 35.10 AC-FT 192700

12413250 SOUTH FORK COEUR D'ALENE RIVER AT KELLOGG, ID

LOCATION.--Lat 47°32'49", long 116°08'09", in SE¼ sec.36, T.49 N., R.2 E., Shoshone County, Hydrologic Unit 17010302, on left bank at concrete bridge on New Street in Kellogg, 100 ft (30 m) upstream from Bunker Hill settling pond, 200 ft (61 m) downstream from Jackass Creek, 1.9 mi (3.1 km) upstream from Government Gulch, and at mile 6.9 (11.1 km).

DRAINAGE AREA.--194 mi² (502 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1974 to current year. Records for December 1966 to March 1974 at site 1.9 mi (3.1 km) downstream ("at Smelterville", sta 12413300) not equivalent owing to difference in drainage areas.

GAGE.--Water-stage recorder. Altitude of gage is 2,300 ft (701 m) from topographic map).

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,100 ft³/s (314 m³/s) Jan. 16, gage height, 16.30 ft (4.968 m) ; minimum, 30 ft³/s (0.850 m³/s) Jan. 11, gage height, 9.30 ft (2.835 m).

EXTREMES FOR CURRENT YEAR.-- Peak discharge above base of 1,500 ft³/s (42.5 m³/s) and maximum (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft³/s)	(m³/s)	(ft)	(m)	Date	Time	(ft³/s)	(m³/s)	(ft)	(m)
Dec. 3	0100	*2480	70.2	12.42	3.786	Apr. 28	0915	1570	44.5	11.75	3.581
Dec. 15	1345	2300	65.1	12.30	3.749	May 22	0630	1700	48.1	11.85	3.612
Mar. 31	0230	1690	47.9	11.92	3.633						

Minimum discharge, 56 ft³/s (1.58 m³/s) Oct. 20-24, gage height, 9.61 ft (2.929 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 19-23, Dec. 31 to Jan. 4; shifting-control method used Aug. 12 to Sept. 30)

9.6	58	10.7	550
9.8	108	11.1	870
10.0	175	11.5	1,270
10.3	310	12.0	1,900

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	79	114	294	170	177	255	1550	951	659	294	120	101
2	77	215	1570	180	187	228	1440	1050	772	274	117	93
3	72	146	1890	195	194	220	1180	1100	961	274	108	90
4	67	123	1180	215	198	211	967	942	1220	315	108	87
5	67	117	722	260	221	211	905	815	1290	260	108	86
6	65	114	598	330	302	199	806	714	1320	237	103	89
7	65	117	591	294	385	187	731	643	1240	237	103	102
8	67	106	613	280	443	228	690	636	1110	224	100	106
9	72	103	475	290	470	320	636	706	1020	220	100	97
10	67	100	385	289	426	362	606	1090	868	211	97	101
11	65	100	494	288	385	374	636	1240	722	203	97	100
12	63	100	764	273	339	362	598	980	643	211	103	97
13	63	100	1010	255	309	342	556	886	606	215	126	93
14	63	126	1740	257	282	309	535	1060	570	203	106	89
15	63	143	1830	263	262	279	507	1340	521	191	123	92
16	60	130	1700	255	246	260	507	1380	488	199	136	97
17	60	117	1300	258	228	265	521	1260	456	195	122	92
18	60	108	1070	253	220	315	514	1060	450	187	141	91
19	60	100	859	251	213	488	507	1040	450	175	117	90
20	60	88	501	247	206	549	563	1310	432	168	120	86
21	58	80	598	242	203	591	598	1470	416	164	123	84
22	58	83	488	253	199	698	556	1580	408	157	120	88
23	58	87	475	237	203	980	542	1270	414	153	125	86
24	60	89	426	225	224	1190	494	970	396	146	110	86
25	74	114	362	220	228	970	507	781	420	143	105	83
26	86	368	325	217	237	859	659	667	368	136	100	81
27	79	279	320	205	260	961	1070	613	341	136	97	79
28	72	260	362	199	260	1130	1350	675	320	133	94	79
29	79	325	385	193	---	1210	1270	734	315	130	92	81
30	108	315	250	180	---	1470	1000	706	304	123	89	80
31	120	---	315	179	---	1580	---	659	---	120	99	---
TOTAL	2167	4367	23892	7453	7507	17603	23001	30333	19498	6034	3409	2706
MEAN	69.9	146	771	240	268	568	767	978	650	195	110	90.2
MAX	120	368	1890	330	470	1580	1550	1580	1320	315	141	106
MIN	58	80	250	170	177	187	494	613	304	120	89	79
AC-FT	4300	8660	47390	14780	14890	34920	45620	60170	38670	11970	6760	5370

CAL YR 1977 TOTAL 75371 MEAN 206 MAX 1890 MIN 45 AC-FT 149500
WTR YR 1978 TOTAL 147970 MEAN 405 MAX 1890 MIN 58 AC-FT 293500

12413250 SOUTH FORK COEUR D'ALENE RIVER AT KELLOGG, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973-76, October 1977 to September 1978.

REMARKS.--Miscellaneous chemical data published for water year 1977.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT 17...	1515	60	205	6.7	17.0	15.0	75	29	20	6.2
NOV 10...	0935	101	199	--	3.0	4.0	--	--	--	--
JAN 05...	0930	236	147	--	1.5	1.0	--	--	--	--
FEB 21...	1425	207	172	--	5.5	4.5	--	--	--	--
APR 05...	1130	879	95	--	6.5	5.5	--	--	--	--
JUN 06...	1430	1310	58	--	23.0	12.5	--	--	--	--
JUL 12...	1335	226	106	--	23.0	16.5	--	--	--	--
18...	1535	211	131	7.1	20.0	17.0	51	17	13	4.5
AUG 21...	1530	117	169	7.5	24.0	17.5	61	24	16	5.1

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
OCT 17...	11	24	.6	1.7	57	0	47	53	1.6
NOV 10...	--	--	--	--	--	--	--	--	--
JAN 05...	--	--	--	--	--	--	--	--	--
FEB 21...	--	--	--	--	--	--	--	--	--
APR 05...	--	--	--	--	--	--	--	--	--
JUN 06...	--	--	--	--	--	--	--	--	--
JUL 12...	--	--	--	--	--	--	--	--	--
18...	4.9	17	.3	1.0	42	0	34	27	.9
AUG 21...	5.9	17	.3	1.1	45	0	37	34	1.2

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 17...	.1	9.5	133	.18	21.5	.49	.02	--	--
NOV 10...	--	--	--	--	--	--	--	--	--
JAN 05...	--	--	--	--	--	--	--	--	--
FEB 21...	--	--	--	--	--	--	--	--	--
APR 05...	--	--	--	--	--	--	--	--	--
JUN 06...	--	--	--	--	--	--	--	38	134
JUL 12...	--	--	--	--	--	--	--	--	--
18...	.0	8.9	82	.11	46.7	.19	.00	--	--
AUG 21...	.0	9.5	96	.13	30.3	.23	.02	--	--

12413490 SOUTH FORK COEUR D'ALENE RIVER AT ENAVILLE, ID

LOCATION.--Lat 47°33'35", long 116°15'03", in SW¼ sec.30, T.49 N., R.2 E., Shoshone County, Hydrologic Unit 17010302, at highway crossing, at Enaville.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--Water years 1972-73, 1975 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, CHEM-ICAL (LOW LEVEL) (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	HARD-NESS (MG/L AS CACO3)
OCT 11...	0800	125	379	6.4	2.5	8.0	6	9.3	85	12	180	--
NOV 22...	1030	E150	352	*6.7	-2.5	2.5	15	11.0	88	24	K3	150
DEC 13...	0815	1620	126	6.9	4.0	4.5	6	11.2	94	1	105	--
JAN 24...	0930	450	262	6.3	.0	2.0	6	5.7	45	15	40	--
FEB 14...	1015	556	221	6.2	2.0	2.5	--	7.2	57	--	K12	--
MAR 21...	0800	1220	134	6.9	4.5	4.5	5	5.2	44	8	K33	--
APR 18...	0800	895	141	6.1	6.5	6.5	2	7.6	67	5	K19	--
MAY 23...	0830	1630	86	6.9	6.0	6.0	4	11.9	104	41	20	37
JUN 22...	0715	575	180	6.8	15.5	13.0	1	7.7	79	1	21	--
JUL 19...	0745	300	298	7.0	14.0	14.0	0	9.4	98	0	99	--
AUG 22...	0830	197	366	7.1	15.5	13.0	7	8.1	83	14	125	--
SEP 19...	0730	157	434	6.8	3.0	9.5	5	9.3	88	16	250	190

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
OCT 11...	--	--	--	--	--	--	--	38	0	31	--	--
NOV 22...	--	41	11	11	14	.4	2.7	--	0	--	150	2.3
DEC 13...	--	--	--	--	--	--	--	27	0	22	--	--
JAN 24...	--	--	--	--	--	--	--	29	0	24	--	--
FEB 14...	--	--	--	--	--	--	--	27	0	22	--	--
MAR 21...	--	--	--	--	--	--	--	24	0	20	--	--
APR 18...	--	--	--	--	--	--	--	24	0	20	--	--
MAY 23...	17	10	2.9	1.9	10	.1	.6	24	0	20	29	.6
JUN 22...	--	--	--	--	--	--	--	32	0	26	--	--
JUL 19...	--	--	--	--	--	--	--	32	0	26	--	--
AUG 22...	--	--	--	--	--	--	--	29	0	24	--	--
SEP 19...	140	59	11	9.1	9	.3	2.6	56	0	46	190	2.4

* Not a field determination.
K Results based on count outside ideal colony count range.

12413490 SOUTH FORK COEUR D'ALENE RIVER AT ENAVILLE, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 11...	12	250	.34	84.4	12	.41	.31	.09	.40	.81	3.6	.18
NOV 22...	12	253	.34	102	8	.48	.42	.12	.54	1.0	4.5	.62
DEC 13...	10	78	.11	341	18	.36	.07	.12	.19	.55	2.4	.08
JAN 24...	11	163	.22	198	9	.29	.20	.12	.32	.61	2.7	.18
FEB 14...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 21...	11	72	.10	237	12	.15	.05	.00	.03	.18	.80	.17
APR 18...	9.8	85	.12	205	2	.12	.05	.17	.22	.34	1.5	.05
MAY 23...	7.0	55	.07	242	15	.05	.01	.05	.06	.11	.49	.04
JUN 22...	9.2	106	.14	165	18	.12	.03	.13	.16	.28	1.2	.06
JUL 19...	9.5	45	.06	36.5	8	.02	.00	.16	.16	.18	.80	.00
AUG 22...	13	249	.34	132	11	.20	.24	.19	.43	.63	2.8	.29
SEP 19...	12	312	.42	132	15	.25	.32	.26	.58	.83	3.7	.36

DATE	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	OIL AND GREASE (MG/L)
OCT 11...	14	40	0	<10	1200	<100	.0	0	6000	1.0	0
NOV 22...	26	13	10	9	2200	83	.1	0	20	.4	0
DEC 13...	8	75	0	12	1000	210	.7	0	2000	1.6	0
JAN 24...	7	50	10	11	1100	59	.1	0	3900	.6	0
FEB 14...	9	50	0	4	850	88	.4	0	3200	--	--
MAR 21...	14	1	0	13	1900	340	.0	4	900	.9	0
APR 18...	4	22	0	4	16000	140	.0	0	1400	5.7	0
MAY 23...	6	6	10	16	1700	110	.3	0	1100	.8	0
JUN 22...	6	35	5	8	1900	10	.2	0	2000	.6	0
JUL 19...	2	7	0	8	70	23	.0	0	30	2.2	0
AUG 22...	12	79	0	15	1900	110	.4	0	5300	1.5	0
SEP 19...	20	78	0	9	2200	130	.1	0	5400	1.6	0

12413810 COEUR D'ALENE RIVER AT ROSE LAKE, ID

LOCATION.--Lat 47°32'14", long 116°28'17", in SW¼SE¼NW¼ sec.4, T.48 N., R.1 W., Kootenai County, Hydrologic Unit 17010303, at wooden bridge crossing river at Rose Lake.

DRAINAGE AREA.--1,318 mi² (3,414 km²).

PERIOD OF RECORD.--Water years 1972 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, CHEMICAL (LOW LEVEL) (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	HARDNESS (MG/L AS CACO3)
OCT 17...	1400	337	159	6.7	15.0	12.0	2	10.5	104	12	K1	--
NOV 22...	1300	475	102	*6.9	-3.0	.5	3	7.7	58	25	<1	56
DEC 12...	1530	5240	81	6.9	8.0	5.0	5	11.7	98	3	81	--
JAN 23...	1500	1600	115	6.6	3.0	3.5	2	7.0	57	21	K2	--
FEB 13...	1315	2540	88	6.2	2.5	3.5	1	11.8	95	11	K3	--
MAR 20...	1400	5380	66	6.6	15.0	8.0	5	11.5	104	8	<1	--
APR 17...	1345	5290	59	7.0	9.5	6.0	1	11.6	101	4	K2	--
MAY 22...	1415	8210	43	6.4	16.5	10.5	2	10.8	104	45	K12	24
JUN 21...	1500	1750	105	6.8	29.0	18.0	1	9.4	107	5	<1	--
JUL 18...	1415	929	153	7.1	23.5	16.0	2	9.0	98	22	40	--
AUG 21...	1430	864	132	6.9	23.0	24.0	1	9.1	116	9	K3	--
SEP 18...	1415	505	171	6.8	13.5	14.5	1	10.1	106	25	K10	71

DATE	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
OCT 17...	--	--	--	--	--	--	--	35	0	29	--	--
NOV 22...	--	15	4.4	3.4	12	.2	.9	--	0	--	41	.7
DEC 12...	--	--	--	--	--	--	--	20	0	16	--	--
JAN 23...	--	--	--	--	--	--	--	22	0	18	--	--
FEB 13...	--	--	--	--	--	--	--	24	0	20	--	--
MAR 20...	--	--	--	--	--	--	--	24	0	20	--	--
APR 17...	--	--	--	--	--	--	--	26	0	21	--	--
MAY 22...	4	7.1	1.4	1.2	10	.1	.4	24	0	20	8.8	.4
JUN 21...	--	--	--	--	--	--	--	32	0	26	--	--
JUL 18...	--	--	--	--	--	--	--	28	0	23	--	--
AUG 21...	--	--	--	--	--	--	--	29	0	24	--	--
SEP 18...	47	20	5.0	3.9	11	.2	1.2	29	0	24	54	.9

* Not a field determination.
K Results based on count outside ideal colony count range.

12413810 COEUR D'ALENE RIVER AT ROSE LAKE, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 17...	9.9	91	.12	82.8	8	.11	.03	.08	.11	.22	.97	.06
NOV 22...	9.9	66	.09	84.6	2	.25	.03	.12	.15	.40	1.8	.04
DEC 12...	9.8	50	.07	707	11	.22	.08	.12	.20	.42	1.9	.03
JAN 23...	11	73	.10	315	5	.10	.03	.00	.03	.13	.58	.05
FEB 13...	11	62	.08	425	21	.08	.02	.00	.02	.10	.44	.04
MAR 20...	10	40	.05	581	15	.05	.01	.04	.05	.10	.44	.13
APR 17...	9.7	39	.05	557	2	.03	.01	.09	.10	.13	.58	.02
MAY 22...	7.6	27	.04	599	12	.05	.01	.09	.10	.15	.66	.01
JUN 21...	9.6	58	.08	274	12	.05	.01	.14	.15	.20	.89	.04
JUL 18...	9.7	90	.12	226	15	.06	.00	.33	.33	.39	1.7	.05
AUG 21...	9.7	69	.09	161	0	.05	.00	.29	.29	.34	1.5	.03
SEP 18...	11	105	.14	143	0	.02	.00	.32	.32	.34	1.5	.02

DATE	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	OIL AND GREASE (MG/L)
OCT 17...	5	20	20	<10	630	<100	.0	0	1600	.7	0
NOV 22...	5	13	10	4	970	83	.0	0	1200	.5	0
DEC 12...	2	26	0	8	590	80	.4	0	960	.9	0
JAN 23...	2	13	10	11	350	42	.1	0	2400	.7	0
FEB 13...	2	20	0	1	340	88	.1	0	820	1.4	0
MAR 20...	11	0	0	7	1500	16	.0	2	380	1.1	0
APR 17...	1	10	0	6	200	92	.0	0	350	5.5	0
MAY 22...	3	4	15	11	940	56	.1	0	340	.7	0
JUN 21...	4	5	5	11	1900	10	.2	0	650	.5	0
JUL 18...	4	21	0	10	1700	380	.2	0	1200	1.0	0
AUG 21...	3	15	10	6	300	50	.0	0	920	1.5	0
SEP 18...	3	23	10	3	300	12	.0	0	1500	1.8	0

12414500 ST. JOE RIVER AT CALDER, ID

LOCATION.--Lat 47°16'30", long 116°11'15", in NW¼SE¼ sec.3, T.45 N., R.2 E., Shoshone County, Hydrologic Unit 17010304, on right bank 150 ft (46 m) southwest of Chicago, Milwaukee, St. Paul, and Pacific Railroad station at Calder, and at mile 42.9 (69 km).

DRAINAGE AREA.--1,030 mi² (2,668 km²), approximately.

PERIOD OF RECORD.--April 1911 to September 1912 (published as "near Calder"), July 1920 to current year.

REVISED RECORDS.--WSP 1182: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,171.76 ft (661.952 m) National Geodetic Vertical Datum of 1929. Apr. 14, 1911, to Sept. 30, 1912, nonrecording gage at site 2.5 mi (4 km) downstream at different datum. Nonrecording gage at present site July 13 to Dec. 21, 1920, water-stage recorder at present site thereafter. Datum July 13, 1920, to Sept. 30, 1966, 75 ft (22.9 m) lower than present datum and datum Oct. 1, 1966, to Aug. 14, 1972, 15 ft (4.572 m) lower than present datum.

REMARKS.--Records good except those for August and September, which are fair. No diversion above gage.

AVERAGE DISCHARGE.--59 years, 2,377 ft³/s (67.3 m³/s), 31.34 in/yr (796 mm/yr), 1,722,000 acre-ft/yr (2,120 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 53,000 ft³/s (1,500 m³/s) Dec. 23, 1933, computed on basis of slope between gages downstream; maximum gage height, 18.1 ft (5.5 m) Apr. 18, 1938, from floodmark, present datum; minimum discharge, 91 ft³/s (2.6 m³/s) Nov. 27, 1952; minimum gage height, 3.43 ft (1.05 m) Dec. 5, 1928, present datum.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 8,500 ft³/s (241 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 2	2245	*18600	527	13.15	4.008	May 22	0900	8850	251	10.17	3.100
Apr. 1	2315	11000	312	10.92	3.328						

Minimum discharge, 386 ft³/s (10.9 m³/s) Oct. 23, gage height, 4.96 ft (1.512 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1 to Nov. 13; stage-discharge relation affected by ice Nov. 21-24, Dec. 31 to Jan. 15)

4.6	162	7.0	2,280
5.0	356	8.0	3,920
5.5	680	10.0	8,400
6.0	1,100	13.0	18,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	703	819	2620	1200	1140	1430	10500	6850	4610	2260	787	560
2	610	1220	11400	1250	1200	1250	10400	7130	5030	2120	772	520
3	548	1180	14400	1500	1190	1210	8420	7070	5650	2030	749	510
4	508	948	8470	1800	1230	1340	6970	6500	6410	2220	733	500
5	483	878	5690	2250	1240	1330	6150	5760	7000	2100	718	510
6	471	878	4640	3000	1560	1260	5460	5220	7410	1900	688	540
7	502	887	4190	2700	1870	1210	4960	5050	7280	1850	673	600
8	603	836	3460	2400	2070	1410	4550	5070	6830	1950	659	650
9	589	764	3090	2200	2100	2070	4290	5480	6490	1830	652	600
10	568	749	2910	2000	1970	2370	4300	6720	5760	1770	638	560
11	514	741	3010	1800	1820	2400	4720	7600	5100	1640	617	550
12	489	718	3460	1700	1600	2290	4620	6860	4640	1540	638	540
13	489	764	4210	1600	1500	2140	4360	6430	4420	1460	844	520
14	483	913	7400	1550	1480	1990	4260	6670	4210	1370	756	510
15	464	1130	7700	1510	1430	1800	4100	7460	3960	1320	741	500
16	452	1020	6580	1480	1350	1710	4230	7730	3700	1360	816	490
17	446	921	5230	1460	1240	1710	4220	7180	3490	1310	700	500
18	434	803	4400	1440	1220	2170	3970	6600	3360	1270	625	510
19	428	688	3670	1420	1180	3190	3890	6500	3360	1280	570	520
20	422	589	3090	1400	1160	3460	4470	7220	3190	1170	580	510
21	410	400	2930	1370	1160	3900	4740	7850	3090	1110	630	500
22	410	420	2810	1440	1140	4540	4500	8530	3020	1070	720	470
23	404	520	2580	1360	1210	5930	4310	7470	3060	1030	815	460
24	404	730	2260	1290	1280	7270	4020	6660	2990	1000	670	450
25	527	974	2120	1290	1310	6460	4130	5880	3140	956	590	440
26	741	3250	1990	1310	1370	5690	5600	5310	2980	930	560	420
27	610	2710	1760	1250	1450	6280	7590	4990	2650	930	540	415
28	527	2250	1580	1220	1470	7320	8160	4930	2490	895	530	420
29	561	2900	1810	1200	---	8020	7710	5160	2470	870	530	430
30	795	3150	1810	1140	---	9680	7010	4950	2400	836	540	420
31	974	---	1500	1130	---	10100	---	4670	---	811	550	---
TOTAL	16569	34750	132770	49660	39940	112930	166610	197500	130190	44188	20631	15125
MEAN	534	1158	4283	1602	1426	3643	5554	6371	4340	1425	666	504
MAX	974	3250	14400	3000	2100	10100	10500	8530	7410	2260	844	650
MIN	404	400	1500	1130	1140	1210	3890	4670	2400	811	530	415
CFSM	.52	1.12	4.16	1.56	1.38	3.54	5.39	6.19	4.21	1.38	.65	.49
IN.	.60	1.26	4.80	1.79	1.44	4.08	6.02	7.13	4.70	1.60	.75	.55
AC-FT	32860	68930	263300	98500	79220	224000	330500	391700	258200	87650	40920	30000

CAL YR 1977 TOTAL 549717 MEAN 1506 MAX 14400 MIN 220 CFSM 1.46 IN 19.85 AC-FT 1090000
WTR YR 1978 TOTAL 960863 MEAN 2633 MAX 14400 MIN 400 CFSM 2.56 IN 34.70 AC-FT 1906000

12414900 ST. MARIES RIVER NEAR SANTA, ID

LOCATION.--Lat 47°10'35", long 116°29'30", in SE¼NW¼ sec.8, T.44 N., R.1 W., Benewah County, Hydrologic Unit 17010304, on right bank 450 ft (137 m) upstream from bridge on U.S. Highway 95 Alternate, 0.3 mi (0.5 km) upstream from Santa Creek, 2.7 mi (4.3 km) northwest of Santa, and at mile 24.6 (39.6 km).

DRAINAGE AREA.--275 mi² (712 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1965 to current year.

REVISED RECORDS.--WRD Idaho 1974: 1968-70(M), 1972(M).

GAGE.--Water-stage recorder. Datum of gage is 2,574.56 ft (784.726 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

AVERAGE DISCHARGE.--13 years, 364 ft³/s (10.3 m³/s), 17.61 in/yr (447 mm/yr), 263,700 acre-ft/yr (325 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,700 ft³/s (303 m³/s) Jan. 15, 1974, gage height, 12.60 ft (3.84 m); minimum, 23 ft³/s (0.651 m³/s) Nov. 26, 1967, gage height, 3.42 ft (1.04 m).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1500 ft³/s (42.5 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 2	1945	2420	68.5	7.52	2.292	Dec. 14	0645	*3440	97.4	8.17	2.490

Minimum discharge, 34 ft³/s (0.96 m³/s) Nov.19, gage height, 3.68 ft (1.122 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 20-24, Jan. 2-9, Feb. 2-4;
shifting-control method used Aug. 4-23)

3.6	28	5.3	426
3.8	42	5.8	710
4.1	76	6.3	1,080
4.4	127	7.0	1,770
4.8	226	8.0	3,150

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	86	101	230	94	199	469	1310	537	305	137	75	84
2	69	129	1730	120	180	371	1330	506	297	129	74	77
3	61	113	1520	170	190	321	1130	485	292	122	73	70
4	55	91	836	235	240	358	955	462	291	181	72	67
5	53	83	537	330	426	362	874	432	288	193	71	66
6	51	86	432	461	906	376	780	402	290	147	70	69
7	56	94	526	451	1070	352	712	383	276	140	68	93
8	83	104	386	400	1310	483	650	360	266	260	67	123
9	78	86	310	537	1030	909	594	366	256	205	66	108
10	63	82	290	476	822	838	555	438	250	172	64	86
11	57	82	559	395	668	717	559	440	241	150	63	86
12	54	82	822	336	537	668	510	430	226	136	68	83
13	53	85	1200	302	436	603	477	418	218	127	109	78
14	53	129	2880	306	400	561	464	442	217	119	98	74
15	52	173	2110	338	359	490	450	553	206	114	84	71
16	52	137	1530	334	324	451	457	631	203	119	131	70
17	50	115	1010	380	276	467	462	661	186	119	101	70
18	49	88	750	436	264	506	413	564	175	115	91	76
19	48	50	576	431	257	709	342	504	162	113	84	76
20	47	41	413	417	268	728	452	469	156	104	84	72
21	47	38	400	404	249	777	433	463	146	99	93	68
22	48	37	437	486	289	898	399	543	142	96	96	67
23	48	56	367	404	318	1060	405	471	147	93	128	65
24	48	105	294	322	358	1230	374	522	152	91	100	64
25	53	274	275	306	414	1100	371	513	162	86	85	62
26	89	466	246	240	526	1020	407	443	171	83	80	59
27	74	244	181	264	603	1040	564	422	144	85	77	58
28	62	236	224	243	542	1060	707	398	132	85	75	58
29	64	360	246	230	---	1040	640	360	141	83	70	62
30	128	334	236	214	---	1160	578	348	132	81	68	60
31	152	---	178	205	---	1120	---	325	---	78	74	---
TOTAL	1972	4161	21716	10351	13516	22374	18404	14317	6258	3862	2559	2222
MEAN	63.6	139	701	334	483	722	613	462	209	125	82.5	74.1
MAX	152	466	2880	537	1310	1230	1330	661	305	260	131	123
MIN	47	37	178	94	180	321	371	325	132	78	63	58
CFSM	.23	.51	2.55	1.22	1.76	2.63	2.23	1.68	.76	.46	.30	.27
IN.	.27	.56	2.94	1.40	1.83	3.03	2.49	1.94	.85	.52	.35	.30
AC-FT	3910	8250	43070	20530	26810	44380	36500	28400	12410	7660	5080	4410

CAL YR 1977 TOTAL 69905 MEAN 192 MAX 2880 MIN 34 CFSM .70 IN 9.46 AC-FT 138700
WTR YR 1978 TOTAL 121712 MEAN 333 MAX 2880 MIN 37 CFSM 1.21 IN 16.46 AC-FT 241400

12414900 ST. MARIES RIVER NEAR SANTA, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973-76, October 1977 to September 1978.
REMARKS.--Miscellaneous chemical data published for water year 1977.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT									
18...	1215	47	53	6.7	14.0	9.0	24	0	7.4
DEC									
29...	0810	232	60	--	5.5	.0	--	--	--
FEB									
23...	1320	312	--	--	4.5	1.5	--	--	--
APR									
07...	0915	723	81	--	8.0	5.5	--	--	--
JUN									
09...	0835	257	40	--	15.0	9.0	--	--	--
JUL									
14...	0845	120	46	--	16.0	18.0	--	--	--
19...	1245	115	42	7.3	17.0	20.0	19	0	5.4
AUG									
16...	0910	152	53	--	12.5	13.5	--	--	--
22...	1240	102	42	7.6	15.0	14.0	20	0	6.0

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT									
18...	1.4	2.2	16	.2	1.2	33	0	27	2.1
DEC									
29...	--	--	--	--	--	--	--	--	--
FEB									
23...	--	--	--	--	--	--	--	--	--
APR									
07...	--	--	--	--	--	--	--	--	--
JUN									
09...	--	--	--	--	--	--	--	--	--
JUL									
14...	--	--	--	--	--	--	--	--	--
19...	1.3	2.2	19	.2	1.2	28	0	23	1.6
AUG									
16...	--	--	--	--	--	--	--	--	--
22...	1.3	2.3	19	.2	1.1	27	0	22	1.5

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT								
18...	.7	.1	17	49	.07	6.22	.03	.03
DEC								
29...	--	--	--	--	--	--	--	--
FEB								
23...	--	--	--	--	--	--	--	--
APR								
07...	--	--	--	--	--	--	--	--
JUN								
09...	--	--	--	--	--	--	--	--
JUL								
14...	--	--	--	--	--	--	--	--
19...	.4	.1	16	42	.06	13.0	.01	.03
AUG								
16...	--	--	--	--	--	--	--	--
22...	.5	.0	15	41	.06	11.3	.01	.03

12415500 COEUR D'ALENE LAKE AT COEUR D'ALENE, ID

LOCATION.--Lat 47°39'55", long 116°46'05", in NW¼SE¼ sec.24, T.50 N., R.4 W., Kootenai County, Hydrologic Unit 17010303, 500 ft (152 m) southwest of south end of Eleventh Street, Coeur d'Alene, and 113.1 mi (182 km) upstream from mouth of Spokane River.

DRAINAGE AREA.--3,700 mi² (9,580 km²), approximately.

PERIOD OF RECORD.--April 1903 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,100.00 ft (640.080 m), referred to originally accepted elevation of 2,157.40 ft (657.575 m) of Geological Survey bench mark in southeast corner of Idaho First National Bank Building (see WSP 882). Gage heights reduced to elevations to that datum. Datum of gage is 2,097.00 ft (639.166 m) National Geodetic Vertical Datum of 1929. Apr. 26, 1903, to Feb. 14, 1905, nonrecording gage at mouth of St. Joe River at datum about 18.7 ft (5.70 m) higher than gage datum. Feb. 15, 1905, to Mar. 23, 1921, nonrecording gage and Mar. 24, 1921, to Dec. 22, 1930, water-stage recorder, at Johnson Wharf 800 ft (244 m) southeast of railroad station and 1 mi (1.6 km) northwest of present site at datum 19.75 ft (6 m) higher than gage datum. Dec. 23, 1930, to Feb. 9, 1931, nonrecording gage at present site and datum.

REMARKS.--The Washington Water Power Co. stores water in Coeur d'Alene Lake by regulation at Post Falls Dam for power generation at Post Falls and other plants on Spokane River. Storage is within natural range of lake stage. Contents given herein are those above elevation 2,120.0 ft (646.18 m). Capacity of lake between elevations 2,120 (646.2) and 2,140 ft (652.3 m), 889,000 acre-ft (1,100 hm³).

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 834,900 acre-ft (1,029 hm³) Dec. 25, 1933, elevation, 2,139.05 ft (651.982 m); minimum, 2,700 acre-ft (3.3 hm³) below zero of contents table Oct. 10-12, 1904, Sept. 24, 25, 1905, Oct. 14 to Nov. 3, 1906, Feb. 9, 10, 1977, elevation, 2,119.9 ft (646.15 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum contents known prior to 1903, 753,300 acre-ft (928.8 hm³) May 31, 1894, elevation, 2,137.6 ft (651.54 m), from high-water marks.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 347,500 acre-ft (428 hm³) Apr. 4, elevation, 2,130.15 ft (649.270 m); minimum, 130,600 acre-ft (161 hm³) Nov. 24, 25, elevation, 2,124.83 ft (647.648 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

2,120.9	24,100	2,126.0	162,900
2,122.0	53,700	2,128.0	238,500
2,124.0	107,900	2,130.0	339,700

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.43	25.25	26.21	26.76	25.35	25.43	29.59	27.60	27.06	28.14	27.98	27.61
2	26.38	25.26	26.90	26.59	25.24	25.39	29.95	27.68	26.95	28.14	28.00	27.57
3	26.36	25.29	28.01	26.49	25.16	25.33	30.11	27.67	26.88	28.16	28.01	27.52
4	26.27	25.29	28.47	26.39	25.13	25.27	30.11	27.70	26.86	28.11	28.01	27.49
5	26.20	25.31	28.43	26.34	25.16	25.25	29.97	27.61	26.87	28.02	28.00	27.46
6	26.17	25.34	28.30	26.40	25.34	25.19	29.74	27.50	26.91	28.09	27.99	27.43
7	26.16	25.30	28.01	26.46	25.67	25.14	29.51	27.34	27.05	28.13	27.99	27.47
8	26.13	25.27	27.95	26.40	26.08	25.19	29.20	27.18	27.11	28.11	27.97	27.45
9	26.06	25.26	28.01	26.41	26.39	25.35	28.90	27.10	27.42	28.05	27.99	27.41
10	26.02	25.21	28.07	26.44	26.56	25.49	28.63	27.13	27.63	28.03	28.00	27.41
11	25.97	25.19	28.00	26.45	26.57	25.60	28.33	27.23	27.75	27.99	28.02	27.38
12	25.93	25.13	27.90	26.42	26.57	25.71	28.11	27.30	27.86	28.02	28.08	27.33
13	25.89	25.13	28.14	26.39	26.48	25.78	27.89	27.37	27.98	28.02	28.08	27.29
14	25.83	25.15	28.62	26.36	26.38	25.78	27.67	27.44	28.04	28.02	28.08	27.26
15	25.79	25.17	29.16	26.35	26.26	25.74	27.49	27.65	28.07	28.02	28.07	27.23
16	25.75	25.20	29.43	26.34	26.00	25.67	27.36	27.95	28.07	28.01	28.07	27.17
17	25.70	25.19	29.51	26.34	25.86	25.60	27.19	28.22	28.07	28.01	28.06	27.12
18	25.65	25.14	29.37	26.32	25.74	25.59	27.05	28.37	28.02	28.01	28.04	27.08
19	25.61	25.09	29.08	26.31	25.64	25.70	26.96	28.43	28.05	28.02	28.01	27.05
20	25.56	25.03	28.70	26.24	25.57	25.88	26.88	28.48	28.05	28.02	27.98	27.01
21	25.49	24.93	28.31	26.26	25.50	26.04	26.83	28.50	28.05	27.98	27.99	26.97
22	25.44	24.89	27.99	26.28	25.46	26.27	26.78	28.50	28.05	27.98	27.99	26.93
23	25.39	24.89	27.73	26.26	25.42	26.62	26.71	28.49	28.07	27.98	27.96	26.87
24	25.34	24.83	27.49	26.27	25.39	27.06	26.62	28.42	28.08	27.98	27.96	26.83
25	25.30	24.94	27.32	26.19	25.37	27.49	26.53	28.25	28.11	27.99	27.96	26.77
26	25.26	25.11	27.25	26.11	25.37	27.74	26.53	28.04	28.11	27.99	27.90	26.68
27	25.22	25.39	27.21	26.02	25.40	27.43	26.71	27.84	28.09	27.99	27.85	26.61
28	25.19	25.55	27.12	25.91	25.45	28.17	27.06	27.67	28.11	27.98	27.79	26.58
29	25.19	25.71	27.12	25.80	---	28.46	27.34	27.51	28.13	27.97	27.71	26.52
30	25.19	25.95	27.04	25.65	---	28.79	27.52	27.37	28.12	27.97	27.69	26.46
31	25.20	---	26.97	25.52	---	29.16	---	27.20	---	27.99	27.66	---
MEAN	25.74	25.21	27.99	26.27	25.73	26.25	27.98	27.77	27.72	28.03	27.96	27.13
MAX	26.43	25.95	29.51	26.76	26.57	29.16	30.11	28.50	28.13	28.16	28.08	27.61
MIN	25.19	24.83	26.21	25.52	25.13	25.14	26.53	27.10	26.86	27.97	27.66	26.46
(†)	140700	161500	194200	149500	147500	296300	216300	202900	244300	238000	222500	176700
(‡)	-36300	+20800	+32700	-44700	-2000	+148800	-80000	-13400	+41400	-6300	-15500	-45800

CAL YR 1977 MEAN 25.55 MAX 29.51 MIN 20.95 ‡ +124600
WTR YR 1978 MEAN 26.99 MAX 30.11 MIN 24.83 ‡ -300

† Contents, in acre-feet at end of month.
‡ Change in contents, in acre-feet
NOTE.--Add 2,100 ft to obtain elevation above mean sea level.

12416000 HAYDEN CREEK BELOW NORTH FORK, NEAR HAYDEN LAKE, ID
(Hydrologic bench-mark station)

LOCATION.--Lat 47°49'22", long 116°39'10", in NW¼NW¼SW¼ sec.25, T.52 N., R.3 W., Kootenai County, Hydrologic Unit 17010305, Coeur d'Alene National Forest, on right bank 0.3 mi (0.5 km) downstream from confluence of East Fork and North Fork, and 7.5 mi (12.1 km) northeast of Hayden Lake Post Office.
DRAINAGE AREA.--22.0 mi² (570.0 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1948 to December 1953, October 1958 to September 1959, September 1961 to September 1965 (annual maximum), October 1965 to current year.
GAGE.--Water-stage recorder. Altitude of gage is 2,370 ft (722 m), from topographic map. April 22, 1948, to Nov. 1, 1948, nonrecording gage and Nov. 2, 1948, to June 26, 1951, water-stage recorder at site 200 ft (61 m) downstream at datum 0.98 ft (0.30 m) lower. June 27, 1951, to Dec. 4, 1953, Oct. 1, 1958, to Sept. 30, 1959, water-stage recorder, Sept. 16, 1961, to Sept. 30, 1965, crest-stage gage, at datum 0.41 ft (0.12 m) higher.
REMARKS.--Records good.
AVERAGE DISCHARGE.--19 years (1949-53, 1959, 1966-78), 29.2 ft³/s (0.827 m³/s), 18.02 in/yr (458 mm/yr), 21,160 acre-ft/yr (26.1 hm³/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 790 ft³/s (22.4 m³/s) Dec. 23, 1964, gage height, 4.56 ft (1.390 m), present site and datum, from rating curve extended above 270 ft³/s (7.65 m³/s) on basis of slope-area measurement; maximum gage height, 4.93 ft (1.503 m) Feb. 11, 1951 (ice jam), site and datum then in use; minimum discharge recorded, 1.7 ft³/s (0.048 m³/s) Aug. 19-20, 1977, gage height, 2.25 ft (0.686 m); minimum gage height, 2.19 ft (0.668 m) Dec. 12, 1972.
EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 200 ft³/s (5.66 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 24	0945	311	8.81	*3.77	1.149	May 17	0100	*317	8.98	3.71	1.131

Minimum discharge, 2.7 ft³/s (0.076 m³/s) Oct. 4, 5, Nov. 19, 20; minimum gage height, 2.24 ft (0.683 m) Nov. 19, 20.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 21-23, Dec. 25 to Jan. 6, Mar. 2-6)

2.2	1.9	2.8	23.3
2.3	3.0	2.9	33.7
2.4	4.7	3.1	67.0
2.5	7.3	3.4	146
2.6	10.7	3.7	272
2.7	15.9		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	4.9	9.3	10	10	20	105	35	42	12	8.1	8.5
2	2.9	5.6	32	11	10	19	92	35	39	12	7.9	7.1
3	2.8	4.2	31	12	11	18	82	34	35	17	7.7	6.9
4	2.7	3.7	21	14	11	17	80	34	32	71	7.6	6.7
5	2.7	3.7	16	19	12	17	85	31	30	44	7.4	6.7
6	2.8	3.7	14	27	24	17	82	29	28	31	7.2	7.0
7	3.3	5.5	12	14	46	16	76	28	26	25	7.1	7.7
8	3.0	4.3	9.7	14	85	19	67	27	25	23	7.0	13
9	3.0	3.9	8.6	16	97	23	56	29	25	20	6.9	9.0
10	2.9	4.0	9.3	16	69	28	49	32	22	19	6.7	8.4
11	2.8	4.0	17	16	52	34	49	33	20	17	6.8	7.8
12	2.8	3.9	25	16	41	37	44	33	20	16	8.6	7.5
13	2.9	9.7	54	14	33	35	41	35	20	15	7.9	7.2
14	2.9	10	147	16	28	33	38	43	18	14	7.3	6.9
15	2.8	7.7	164	16	26	30	36	84	17	14	17	6.8
16	2.9	5.6	140	14	24	28	35	200	17	14	23	6.5
17	2.8	4.7	78	14	21	28	32	241	17	13	14	6.5
18	2.8	4.5	49	13	20	38	30	141	17	13	15	6.5
19	2.8	3.7	34	13	19	78	30	97	16	12	11	6.2
20	2.8	3.2	26	13	18	113	32	74	16	12	12	6.0
21	2.8	3.0	24	13	17	128	31	66	15	11	11	6.1
22	2.8	3.1	23	13	17	157	30	56	15	11	10	6.2
23	2.9	3.3	20	12	18	198	28	48	14	10	12	6.0
24	3.8	3.7	20	12	18	268	27	49	14	10	10	5.7
25	3.5	8.3	17	12	19	178	26	45	16	9.7	9.4	5.7
26	3.3	13	14	12	20	137	29	43	14	9.7	8.9	5.7
27	3.0	9.0	14	11	20	137	34	42	13	9.4	8.5	5.5
28	2.9	9.3	13	11	21	140	38	48	13	9.0	8.1	5.5
29	4.6	14	12	11	---	137	38	53	13	8.7	7.5	5.5
30	8.0	11	12	10	---	143	37	58	12	8.4	7.6	5.5
31	5.7	---	11	10	---	131	---	46	---	8.3	8.1	---
TOTAL	100.1	178.2	1076.9	425	807	2402	1459	1854	621	519.2	297.3	206.3
MEAN	3.23	5.94	34.7	13.7	28.8	77.5	48.6	59.8	20.7	16.7	9.59	6.88
MAX	8.0	14	164	27	97	268	105	241	42	71	23	13
MIN	2.7	3.0	8.6	10	10	16	26	27	12	8.3	6.7	5.5
CFSM	.15	.27	1.58	.62	1.31	3.52	2.21	2.72	.94	.76	.44	.31
IN.	.17	.30	1.82	.72	1.36	4.06	2.47	3.13	1.05	.88	.50	.35
AC-FT	199	353	2140	843	1600	4760	2890	3680	1230	1030	590	409

CAL YR 1977 TOTAL 2911.7 MEAN 7.98 MAX 164 MIN 1.8 CFSM .36 IN 4.92 AC-FT 5780
WTR YR 1978 TOTAL 9946.0 MEAN 27.2 MAX 268 MIN 2.7 CFSM 1.24 IN 16.82 AC-FT 19730

12416000 HAYDEN CREEK BELOW NORTH FORK, NEAR HAYDEN LAKE, ID--Continued
(Hydrologic bench-mark station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)
OCT 25...	1330	3.5	104	--	8.0	9.0	--	--	--	--	--	--
NOV 25...	1500	5.8	71	*7.4	.5	1.0	11.6	88	45	32	21	35
JAN 31...	1000	11	78	7.0	.0	2.0	12.7	100	K2	<1	K9	36
MAR 27...	1250	136	36	--	17.0	8.5	--	--	--	--	--	--
APR 14...	1215	39	*53	6.5	10.5	10.0	5.8	55	K5	K2	K13	23
MAY 31...	1000	59	71	7.2	15.5	10.5	11.0	105	K10	K7	K6	26
JUL 25...	1400	9.7	75	7.4	29.5	16.0	10.1	111	33	38	K1500	37
SEP 01...	1030	8.1	82	7.4	17.5	12.5	9.9	101	51	28	25	38
29...	1130	5.6	82	8.4	14.5	10.5	10.3	100	26	K19	21	38

DATE	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
OCT 25...	--	--	--	--	--	--	--	--	--	--	--	--
NOV 25...	2	9.0	3.0	1.1	6	.1	.6	*40	*0	33	5.2	.6
JAN 31...	4	10	2.7	1.0	6	.1	.6	39	0	32	5.0	.6
MAR 27...	--	--	--	--	--	--	--	--	--	--	--	--
APR 14...	0	6.4	1.8	.7	6	.1	.5	32	0	26	3.5	.5
MAY 31...	0	6.7	2.2	1.2	9	.1	.5	41	0	34	4.7	.3
JUL 25...	0	10	3.0	1.8	9	.1	.8	49	0	40	2.0	.4
SEP 01...	0	10	3.2	1.2	6	.1	.7	51	0	42	2.8	.5
29...	0	10	3.2	1.4	9	.1	.6	49	0	40	4.0	.2

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)
OCT 25...	--	--	--	--	--	--	--	--	--	--	--	--
NOV 25...	.1	10	39	49	.05	.61	.46	.01	--	--	--	--
JAN 31...	.0	13	39	52	.05	1.18	.14	.01	--	--	--	--
MAR 27...	--	--	--	--	--	--	--	--	--	--	--	--
APR 14...	.0	12	38	41	.05	4.00	.02	.00	3	100	6	0
MAY 31...	.0	13	39	49	.05	6.21	.08	.00	--	--	--	--
JUL 25...	.0	13	50	55	.07	1.31	.04	.00	--	--	--	--
SEP 01...	.1	13	49	57	.07	1.07	.03	.01	0	200	11	10
29...	.0	13	53	57	.07	.80	.03	.01	--	--	--	--

* Not a field determination.

12416000 HAYDEN CREEK BELOW NORTH FORK, NEAR HAYDEN LAKE, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
OCT 25...	--	--	--	--	--	--	--	--	--	--	--
NOV 25...	--	--	--	--	--	--	--	--	--	2	.03
JAN 31...	--	--	--	--	--	--	--	--	--	--	--
MAR 27...	--	--	--	--	--	--	--	--	--	12	4.4
APR 14...	3	98	99	0	.0	0	1	10	.00	2	.21
MAY 31...	--	--	--	--	--	--	--	--	--	2	.32
JUL 25...	--	--	--	--	--	--	--	--	--	2	.05
SEP 01...	6	110	16	0	.0	0	0	10	.00	3	.07
29...	--	--	--	--	--	--	--	--	--	9	.14

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	URANIUM DISSOLVED, EXTRACTION (UG/L)
SEP 01...	1030	<.5	<.4	.8	<.4	.7	<.4	.03	.02

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	PCB, TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DIAZINON, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)
SEP 01...	1030	.0	.00	.0	.00	.00	.00	.00	.00	.00	.00	.00

DATE	HEPTACHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALATHION, TOTAL (UG/L)	METHYL PARATHION, TOTAL (UG/L)	METHYL TRITHION, TOTAL (UG/L)	PARATHION, TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)	TOTAL TRITHION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
SEP 01...	.00	.00	.00	.00	.00	.00	0	.00	.00	.00	.00

12417000 HAYDEN LAKE AT HAYDEN LAKE, ID

LOCATION.--Lat 47°46'02", long 116°45'12", in SE¼SE¼NW¼ sec.18, T.51 N., R.3 W., Kootenai County, Hydrologic Unit 17010305, at Avondale pumping plant, 1.6 mi (2.6 km) northeast of Hayden Lake Post Office.

DRAINAGE AREA.--62.3 mi² (161 km²).

PERIOD OF RECORD.--May 1920 to current year.

GAGE.--Nonrecording gage read once daily. Datum of gage is 2,200.21 ft (670.624 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1925, at datum 30.35 ft (9.251 m) higher. Oct. 1, 1925, to Mar. 26, 1931, at datum 21.60 ft (6.584 m) higher.

REMARKS.--Water is pumped from lake for irrigation and domestic supply. Lake has no natural surface outlet. Some surface flow leaves the lake during high stages (most years) through a controlled outlet in the dike at the southeast corner. Due to the permeability of the lakebed and outlet area, the excess flow leaves the area by infiltration to the ground water of Rathdrum Prairie.

EXTREMES (AT 0800) FOR PERIOD OF RECORD.--Maximum gage height observed, 42.46 ft (12.942 m) Apr. 22, 1956; minimum observed, 19.38 ft (5.907 m) Dec. 16, 1931.

EXTREMES (AT 0800) FOR CURRENT YEAR.--Maximum gage height observed, 36.24 ft (11.046 m) June 2-5; minimum observed, 29.42 ft (8.967 m) Nov. 26-28.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29.98	29.51	29.49	30.85	31.09	31.95	34.16	35.03	36.23	35.72	35.05	34.45
2	29.95	29.50	29.52	30.86	31.10	31.98	34.26	35.04	36.24	35.76	35.00	34.44
3	29.92	29.50	29.53	30.86	31.11	31.99	34.36	35.04	36.24	35.77	34.97	34.40
4	29.91	29.50	29.55	30.86	31.13	32.00	34.44	35.05	36.24	35.78	34.94	34.38
5	29.90	29.50	29.56	30.87	31.16	32.02	34.50	35.05	36.24	35.80	34.90	34.36
6	29.88	29.49	29.58	30.88	31.18	32.05	34.57	35.05	36.23	35.80	34.86	34.36
7	29.86	29.48	29.61	30.90	31.21	32.07	34.64	35.05	36.21	35.80	34.80	34.37
8	29.84	29.46	29.64	30.91	31.28	32.09	34.70	35.06	36.20	35.80	34.75	34.38
9	29.82	29.45	29.67	30.92	31.40	32.13	34.73	35.07	36.17	35.78	34.70	34.39
10	29.80	29.45	29.70	30.94	31.51	32.15	34.76	35.08	36.14	35.76	34.65	34.38
11	29.78	29.44	29.73	30.95	31.62	32.17	34.78	35.08	36.12	35.74	34.58	34.36
12	29.77	29.44	29.76	30.96	31.64	32.25	34.80	35.09	36.10	35.72	34.54	34.34
13	29.77	29.45	29.84	30.97	31.66	32.33	34.83	35.09	36.09	35.70	34.53	34.32
14	29.76	29.46	29.98	30.98	31.68	32.38	34.84	35.15	36.08	35.68	34.52	34.30
15	29.75	29.48	30.24	30.96	31.70	32.43	34.85	35.26	36.07	35.66	34.54	34.27
16	29.73	29.47	30.34	30.99	31.72	32.47	34.86	35.40	36.06	35.63	34.56	34.24
17	29.71	29.46	30.44	30.99	31.75	32.51	34.87	35.55	36.05	35.60	34.58	34.21
18	29.69	29.45	30.49	31.00	31.78	32.55	34.89	35.75	36.02	35.58	34.60	34.18
19	29.67	29.45	30.56	31.00	31.79	32.63	34.90	35.82	36.00	35.56	34.63	34.17
20	29.64	29.44	30.61	31.00	31.80	32.72	34.91	35.84	35.97	35.52	34.65	34.16
21	29.64	29.44	30.63	31.01	31.81	32.81	34.92	35.92	35.93	35.49	34.64	34.15
22	29.62	29.44	30.65	31.01	31.82	32.90	34.93	35.96	35.88	35.46	34.63	34.14
23	29.60	29.44	30.68	31.01	31.84	33.03	34.93	35.99	35.86	35.43	34.62	34.12
24	29.58	29.44	30.70	31.01	31.86	33.22	34.94	36.03	35.84	35.40	34.60	34.10
25	29.56	29.43	30.71	31.02	31.87	33.40	34.95	36.05	35.83	35.37	34.58	34.08
26	29.54	29.42	30.72	31.02	31.89	33.51	34.95	36.07	35.82	35.34	34.56	34.04
27	29.53	29.42	30.76	31.02	31.91	33.62	34.96	36.10	35.80	35.32	34.54	34.02
28	29.52	29.42	30.79	31.03	31.93	33.74	34.97	36.14	35.78	35.30	34.52	33.99
29	29.51	29.44	30.81	31.04	---	33.86	34.98	36.18	35.75	35.27	34.49	33.97
30	29.51	29.47	30.83	31.05	---	33.92	35.02	36.20	35.73	35.20	34.48	33.94
31	29.51	---	30.84	31.07	---	34.07	---	36.22	---	35.10	34.46	---
MAX	29.98	29.51	30.84	31.07	31.93	34.07	35.02	36.22	36.24	35.80	35.05	34.45
MIN	29.51	29.42	29.49	30.85	31.09	31.95	34.16	35.03	35.73	35.10	34.46	33.94

WTR YR 1978 MAX 36.24 MIN 29.42

12418000 RATHDRUM PRAIRIE CANAL AT HUETTER, ID

LOCATION.--Lat 47°42'35", long 116°52'05", in SE¼NE¼ sec.6, T.50 N., R.4 W., Kootenai County, Hydrologic Unit 17010305, on left bank 171 ft (52 m) downstream from outlet of discharge pipe, 0.6 mi (1.0 m) north of pumping plant, and 0.8 mi (1.2 km) northwest of Huetter.

PERIOD OF RECORD.--October 1945 to current year. Monthly discharge only for October 1945 to March 1946, published in WSP 1316.

GAGE.--Water-stage recorder. Datum of gage is 2,272.02 ft (692.512 m) National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). Prior to Oct. 5, 1967, water-stage recorder at site 365 ft (111 m) upstream at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good. Canal carries water which is pumped from Spokane River in sec.7, T.50 N., R.4 W., for irrigation of first unit of Rathdrum Prairie project about 3,000 acres (1,210 hm²).

EXTREMES.--Period of record: Maximum daily discharge, 66 ft³/s (1.87 m³/s) June 29 to July 2, 1947; no flow for long periods in each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	24	35	45	29
2	.00	.00	.00	.00	.00	.00	.00	.00	24	.00	45	29
3	.00	.00	.00	.00	.00	.00	.00	15	24	31	45	28
4	.00	.00	.00	.00	.00	.00	.00	20	24	13	45	28
5	.00	.00	.00	.00	.00	.00	.00	20	25	.00	45	28
6	.00	.00	.00	.00	.00	.00	.00	20	25	.00	45	28
7	.00	.00	.00	.00	.00	.00	.00	20	38	32	46	27
8	.00	.00	.00	.00	.00	.00	.00	22	43	40	46	26
9	.00	.00	.00	.00	.00	.00	.00	23	45	39	47	25
10	.00	.00	.00	.00	.00	.00	.00	23	45	28	47	23
11	.00	.00	.00	.00	.00	.00	.00	23	46	41	47	22
12	.00	.00	.00	.00	.00	.00	.00	23	46	43	46	22
13	.00	.00	.00	.00	.00	.00	.00	23	46	45	45	22
14	.00	.00	.00	.00	.00	.00	.00	22	46	46	45	23
15	.00	.00	.00	.00	.00	.00	.00	5.6	47	46	35	6.6
16	.00	.00	.00	.00	.00	.00	.00	.00	48	47	31	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	48	47	31	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	48	48	31	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	48	48	32	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	48	48	32	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	49	48	32	.00
22	.00	.00	.00	.00	.00	.00	.00	16	49	48	32	.00
23	.00	.00	.00	.00	.00	.00	.00	23	49	48	31	.00
24	.00	.00	.00	.00	.00	.00	.00	23	48	48	31	.00
25	.00	.00	.00	.00	.00	.00	.00	22	47	46	31	.00
26	.00	.00	.00	.00	.00	.00	2.7	23	46	47	31	.00
27	.00	.00	.00	.00	.00	.00	12	22	46	47	31	.00
28	.00	.00	.00	.00	.00	.00	.00	23	40	46	31	.00
29	.00	.00	.00	.00	---	.00	.00	23	31	46	31	.00
30	.00	.00	.00	.00	---	.00	.00	23	45	46	30	.00
31	.00	---	.00	.00	---	.00	---	24	---	46	30	---
TOTAL	.00	.00	.00	.00	.00	.00	14.70	481.60	1238	1193.00	1172	366.60
MEAN	.000	.000	.000	.000	.000	.000	.49	15.5	41.3	38.5	37.8	12.2
MAX	.00	.00	.00	.00	.00	.00	12	24	49	48	47	29
MIN	.00	.00	.00	.00	.00	.00	.00	.00	24	.00	30	.00
AC-FT	.00	.00	.00	.00	.00	.00	29	955	2460	2370	2320	727

CAL YR 1977 TOTAL 5843.50 MEAN 16.0 MAX 62 MIN .00 AC-FT 11590
WTR YR 1978 TOTAL 4465.90 MEAN 12.2 MAX 49 MIN .00 AC-FT 8860

12419000 SPOKANE RIVER NEAR POST FALLS, ID

LOCATION.--Lat 47°42'10", long 116°58'40", in SW¼SW¼ sec.4, T.50 N., R.5 W., Kootenai County, Hydrologic Unit 17010305, on right bank 1 mi (1.6 km) downstream from powerplant of Washington Water Power Co., 1.5 mi (2.4 km) southwest of Post Falls, and at mile 100.7 (162 km).

DRAINAGE AREA.--3,840 mi² (9,946 km²), approximately, of which about 122 mi² (316 km²) in the vicinity of Hayden Lake is noncontributing to this station.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1912 to current year (prior to January 1913 monthly discharge only, published in WSP 870 and 1736). Prior to October 1949, published as "at Post Falls".

GAGE.--Water-stage recorder. Datum of gage is 2,050 ft (624.840 m) referred to originally accepted elevation of 2,157.40 ft (657.575 m) for the Geological Survey bench mark in southeast corner of Idaho First National Bank Building (see WSP 882). National Geodetic Vertical Datum of 1929 is at 2,047.00 ft (623.92 m) gage datum. Jan. 1, 1913, to Nov. 21, 1920, nonrecording gage and Nov. 22, 1920, to Sept. 15, 1934, recording gage 0.6 mi (1.0 km) upstream. From Sept. 16, 1934, to Nov. 15, 1949, recording gage 0.8 mi (1.3 km) upstream. From Nov. 16, 1949, at present site. Datum of all gages prior to Sept. 30, 1964, 50 ft (15.2 m) lower.

REMARKS.--Records excellent. Rathdrum Prairie Canal (see sta 12418000) diverts water above gage for irrigation. Figures of daily discharge do not include water diverted by this canal. Flow regulated by dam at Post Falls and affected by storage in Coeur d'Alene Lake (see sta 12415500).

AVERAGE DISCHARGE.--River only, 66 years, 6,307 ft³/s (179 m³/s), 4,569,000 acre-ft/yr (5,634 hm³/yr); combined river and diversions above gage, 66 years, 6,396 ft³/s (181 m³/s), 4,634,000 acre-ft/yr (5,714 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 50,100 ft³/s (1,419 m³/s) when recorder was not operating Dec. 25, 1933 (determined from unpublished records collected by Washington Water Power Co. for station at Liberty Bridge); minimum, 65 ft³/s (1.84 m³/s) July 25, 30, 1973; minimum gage height, 4.68 ft (1.426 m) July 20, 21, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 22,700 ft³/s (643 m³/s) Apr. 4, gage height, 18.58 ft (5.663 m); minimum, 98 ft³/s (2.78 m³/s) Aug. 14, gage height, 4.90 ft (1.494 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1860	1660	2910	5960	6610	5770	19800	14000	12800	3560	949	1750
2	1860	1670	4560	6320	6420	5760	21100	14200	12500	3580	808	1750
3	1790	1660	8800	6250	5660	5740	21800	14300	12200	4020	702	1750
4	1740	1660	16100	5770	4890	5710	22100	14200	12200	4370	702	1760
5	1730	1660	17000	5040	4300	5710	22000	14300	12200	4590	711	1740
6	1680	1670	16900	5590	4320	5690	21300	14000	12200	4590	895	1750
7	1640	1770	16300	6120	4340	5660	20700	13700	9460	4210	1220	1680
8	1650	2150	8940	6120	4960	5660	20000	13100	9660	3490	943	1760
9	1640	2140	6680	5910	7710	6290	19100	12700	5500	2720	773	1740
10	1640	2140	7090	5280	8250	7070	18300	12600	5690	3100	765	1750
11	1650	2140	10200	5410	8300	7380	17500	12700	5700	3300	748	1760
12	1640	2150	13200	5420	8290	7480	16800	12900	5180	3290	749	1760
13	1640	2150	15100	5390	8200	7810	16200	13000	5320	2950	777	1740
14	1640	2150	16700	5380	8050	7960	15100	13200	5810	2240	744	1750
15	1630	2150	18400	5380	8020	7950	14300	14100	5830	1950	1550	1770
16	1630	2160	19600	5370	7890	7880	13900	14700	5820	1960	1900	1750
17	1650	2160	20000	5370	7150	7810	13500	16200	5760	1940	2000	1760
18	1660	2170	20100	5360	6630	7740	12100	16800	5710	1940	2000	1740
19	1660	2160	19500	5350	6170	8010	11800	16900	5330	1940	2000	1750
20	1650	2160	18500	5360	5850	8830	11700	17200	4920	1940	2000	1740
21	1660	2150	17500	5360	5570	9720	11600	17300	4680	1930	1800	1760
22	1660	2140	15200	5360	5170	10100	11500	17400	4700	1950	1840	1760
23	1660	2150	13000	5360	5160	11200	11300	17300	4460	1820	2080	1760
24	1650	2160	11200	5230	5550	12100	11100	17300	4320	1570	1190	1750
25	1650	2160	9350	5340	5760	13800	10900	17000	4510	1480	1500	1750
26	1660	2160	6560	5780	5760	14800	10800	16200	4450	1470	2100	1750
27	1650	2140	5550	6050	5620	15600	11000	15600	4280	1470	2100	1740
28	1660	2510	5610	5980	5790	16200	11500	14900	3800	1390	2090	1760
29	1680	2810	5590	5960	---	16900	12600	14400	3520	1250	2080	1760
30	1670	2820	5590	6300	---	17800	13300	13900	3610	1240	1910	1770
31	1660	---	5570	6340	---	18700	---	13400	---	1090	1740	---
TOTAL	51940	62930	377300	175230	176390	294850	464700	459500	202120	78340	43366	52510
MEAN	1675	2098	12170	5653	6300	9511	15490	14820	6737	2527	1399	1750
MAX	1860	2820	20100	6340	8300	18700	22100	17400	12800	4590	2100	1770
MIN	1630	1660	2910	5040	4300	5660	10800	12600	3520	1090	702	1680
AC-FT	103000	124800	748400	347600	349900	584800	921700	911400	400900	155400	86020	104200
MEAN†	1675	2098	12170	5653	6300	9511	15490	14840	6779	2566	1437	1763
AC-FT†	103000	124800	748400	347600	349900	584800	921729	912355	403360	157770	88340	104927

CAL YR 1977 TOTAL 1118197 MEAN 3064 MAX 20100 MIN 77 AC-FT 2218000 MEAN† 3080 AC-FT† 2229590
WTR YR 1978 TOTAL 2439176 MEAN 6683 MAX 22100 MIN 702 AC-FT 4838000 MEAN† 6695 AC-FT† 4846860

† Adjusted for diversion through Rathdrum Prairie Canal.

12419000 SPOKANE RIVER NEAR POST FALLS, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, CHEM-ICAL (LOW LEVEL) (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)
OCT 17...	1130	1650	67	7.3	12.0	12.5	1	9.6	97	13	K3	--
NOV 15...	1100	2160	65	6.1	5.0	8.0	1	10.3	93	8	K1	29
DEC 12...	1230	14500	67	7.2	8.0	6.5	1	13.0	112	1	K1	--
JAN 23...	1200	5390	67	6.6	-1.0	3.0	1	12.2	97	15	<1	--
FEB 13...	1015	8210	72	6.7	-1.0	2.0	2	13.9	108	13	<1	--
MAR 20...	1130	9020	64	6.8	4.0	6.0	2	13.8	120	7	K1	--
APR 17...	1015	13400	62	6.4	10.5	6.5	2	10.0	88	9	K16	--
MAY 22...	1130	17100	53	6.7	12.0	13.0	1	12.0	122	47	<1	24
JUN 22...	1330	5050	55	7.7	24.0	21.0	1	9.1	109	7	K1	--
JUL 18...	1115	1950	52	7.3	17.5	21.0	0	8.3	99	17	K7	--
AUG 21...	1100	1980	53	7.7	21.0	20.0	1	8.1	95	0	K3	--
SEP 18...	0945	1710	59	7.7	9.0	14.0	1	8.8	91	18	200	--

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
OCT 17...	--	--	--	--	--	--	--	34	0	28	--	--
NOV 15...	7	8.3	2.1	1.5	10	.1	.7	27	0	22	8.6	.4
DEC 12...	--	--	--	--	--	--	--	24	0	20	--	--
JAN 23...	--	--	--	--	--	--	--	24	0	20	--	--
FEB 13...	--	--	--	--	--	--	--	24	0	20	--	--
MAR 20...	--	--	--	--	--	--	--	29	0	24	--	--
APR 17...	--	--	--	--	--	--	--	24	0	20	--	--
MAY 22...	0	7.2	1.4	1.6	12	.1	.7	29	0	24	9.3	.5
JUN 22...	--	--	--	--	--	--	--	37	0	30	--	--
JUL 18...	--	--	--	--	--	--	--	24	0	20	--	--
AUG 21...	--	--	--	--	--	--	--	24	0	20	--	--
SEP 18...	--	--	--	--	--	--	--	26	0	21	--	--

K Results based on count outside ideal colony count range.

12419000 SPOKANE RIVER NEAR POST FALLS, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 17...	4.8	30	.04	134	9	.01	.00	.17	.17	.18	.80	.03
NOV 15...	5.6	43	.06	251	5	.11	.00	.22	.22	.33	1.5	.02
DEC 12...	6.3	38	.05	1490	8	.03	.02	.16	.18	.21	.93	.00
JAN 23...	6.8	38	.05	553	7	.03	.01	.04	.05	.08	.35	.03
FEB 13...	8.4	46	.06	1020	20	.07	.01	.01	.02	.09	.40	.02
MAR 20...	8.4	38	.05	925	0	.06	.00	.20	.20	.26	1.2	.02
APR 17...	9.4	41	.06	1480	5	.04	.01	.31	.32	.36	1.6	.02
MAY 22...	7.6	36	.05	1660	7	.02	.01	.22	.23	.25	1.1	.00
JUN 22...	8.8	31	.04	423	5	.03	.01	.13	.14	.17	.75	.01
JUL 18...	7.9	36	.05	190	5	.02	.01	.24	.25	.27	1.2	.02
AUG 21...	7.7	38	.05	203	0	.00	.00	.22	.22	.22	.97	.02
SEP 18...	8.2	34	.05	157	7	.01	.01	.17	.18	.19	.84	.00

DATE	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	OIL AND GREASE (MG/L)
OCT 17...	0	<10	20	<10	20	<100	.0	0	120	1.9	0
NOV 15...	1	11	4	12	40	43	.0	0	180	2.0	0
DEC 12...	1	6	0	3	120	42	.2	0	200	2.6	0
JAN 23...	1	8	0	8	60	59	.1	0	200	1.6	0
FEB 13...	1	6	0	4	80	40	.4	0	220	1.5	0
MAR 20...	4	0	0	4	180	4	.0	2	230	1.7	0
APR 17...	1	11	0	7	180	77	.0	0	190	6.8	0
MAY 22...	1	2	10	11	160	9	.1	0	200	2.4	0
JUN 22...	0	4	5	7	280	5	.2	0	110	1.1	0
JUL 18...	2	22	0	5	90	80	.1	0	110	1.6	0
AUG 21...	1	11	0	4	0	66	.0	0	90	1.8	0
SEP 18...	0	9	0	6	100	65	.0	0	90	2.2	0

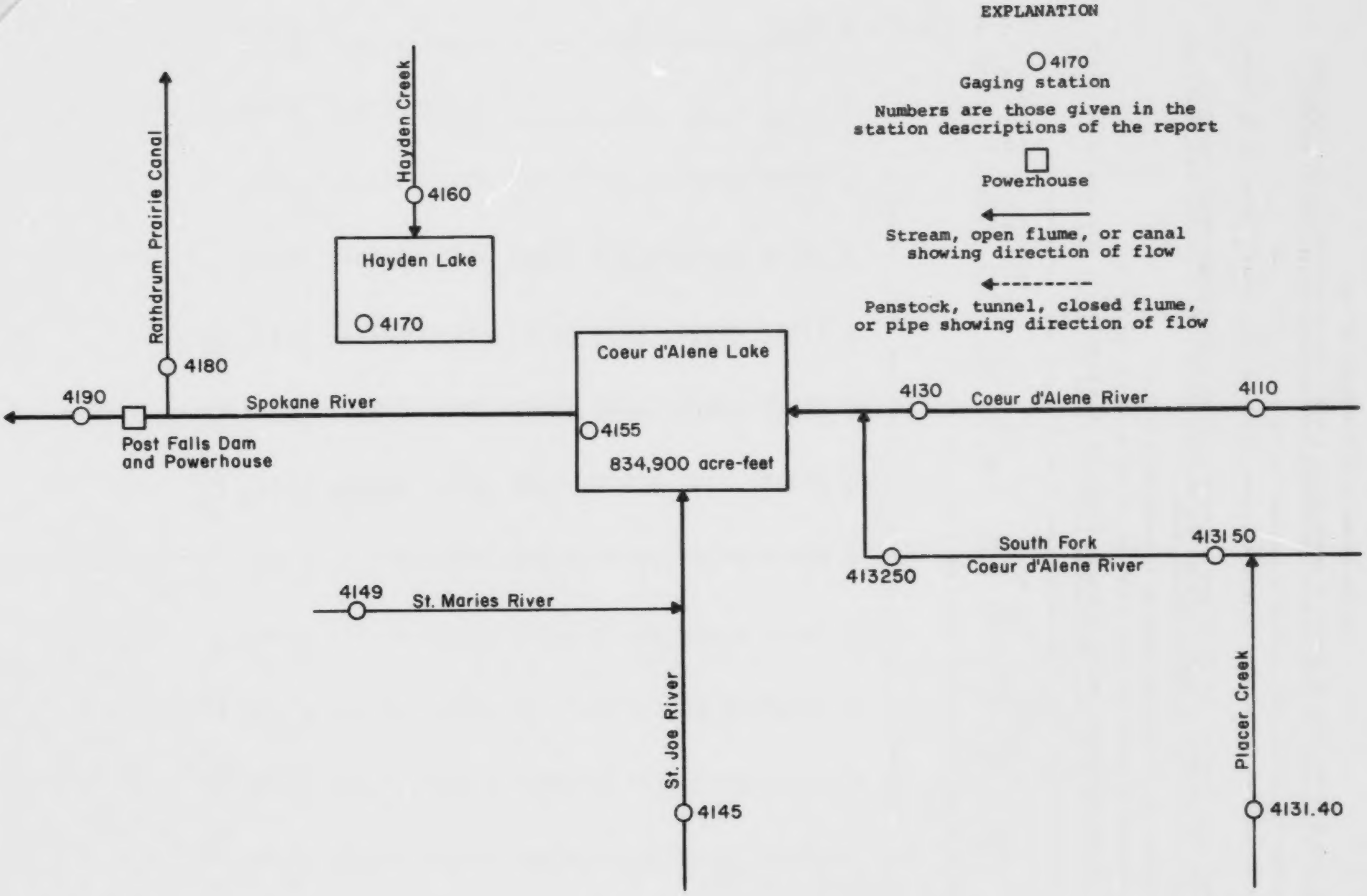
EXPLANATION
4170
Gaging station
Numbers are those given in the station descriptions of the report
Powerhouse
Stream, open flume, or canal showing direction of flow
Penstock, tunnel, closed flume, or pipe showing direction of flow
Hayden Creek
4160
Hayden Lake
4170
Rathdrum Prairie Canal
4180
4190
Spokane River
Post Falls Dam and Powerhouse
Coeur d'Alene Lake
4155
834,900 acre-feet
4130
Coeur d'Alene River
4110
South Fork Coeur d'Alene River
413150
413250
4149
St. Maries River
St. Joe River
4145
Placer Creek
4131.40

FIGURE 12.--Gaging stations in Spokane River basin.

13161500 BRUNEAU RIVER AT ROWLAND, NV

LOCATION.--Lat 41°56'00", long 115°40'25", in NW¼SE¼ sec.29, T.47 N., R.56 E., Elko County, Hydrologic Unit 17050102, on left bank 2 mi (3 km) upstream from McDonald Creek and 0.5 mi (0.8 km) south of Rowland.

DRAINAGE AREA.--382 mi^2 (989 km^2). Area at crest-stage site, 380 mi^2 (984 km^2).

PERIOD OF RECORD.--June 1913 to September 1918, water years 1962-66 (annual maximum), October 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,500 ft (1,372 m), from topographic map). June 1913 to September 1918, nonrecording gage at different site and datum. October 1961 to September 1966, crest-stage gage at site 3 mi (5 km) upstream at different datum.

REMARKS.--Records good. Minor diversions for irrigation above station.

AVERAGE DISCHARGE.--17 years, 119 ft^3/s (3.370 m^3/s), 86,220 acre-ft/yr (106 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,120 ft^3/s (60.0 m^3/s) Feb. 11, 1962, gage height, 13.0 ft (3.96 m), site and datum then in use); minimum, 5 ft^3/s (0.14 m^3/s) Aug. 12, 13, 1918.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft^3/s (5.66 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 31	2200	*630	17.8	5.78	1.762	May 15	2200	522	14.8	5.37	1.637
Apr. 26	2200	445	12.6	5.03	1.533	June 10	0100	313	8.86	4.56	1.390

Minimum discharge, 7.2 ft^3/s (0.20 m^3/s) Sept. 3, 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	16	25	23	37	65	586	364	231	84	18	8.9
2	14	16	25	33	38	70	470	362	226	84	17	8.5
3	13	16	27	35	38	67	367	388	225	82	16	8.2
4	13	16	36	32	37	69	334	381	218	85	15	7.9
5	13	17	29	31	41	79	303	358	225	80	14	12
6	13	18	25	32	42	87	277	330	250	74	14	25
7	13	18	28	31	47	84	293	306	283	68	13	18
8	13	16	25	28	45	89	282	287	292	66	12	16
9	13	15	20	32	47	93	281	292	299	61	11	14
10	13	17	19	32	48	103	293	329	306	56	11	18
11	13	18	20	32	42	108	318	351	273	53	11	24
12	13	18	23	32	41	117	314	338	235	51	9.9	22
13	14	17	24	31	46	98	308	352	226	48	9.6	20
14	14	17	29	33	48	95	296	409	227	44	11	18
15	14	18	52	40	37	85	303	490	218	42	11	17
16	14	18	40	41	42	87	326	479	203	40	11	17
17	14	18	37	41	41	95	295	401	177	37	12	16
18	14	17	32	41	43	122	266	338	165	35	12	17
19	14	14	25	41	46	158	261	304	158	32	12	20
20	15	17	30	44	43	206	272	290	151	31	11	20
21	15	21	40	42	43	264	256	294	145	32	9.6	21
22	15	27	45	37	45	339	235	316	143	30	9.2	22
23	15	23	42	32	49	385	225	344	137	28	9.6	22
24	15	22	33	27	54	390	218	349	129	26	9.6	20
25	15	30	31	30	59	359	241	321	123	23	9.2	19
26	15	44	29	35	59	395	378	287	116	22	8.9	19
27	15	39	31	33	71	451	404	255	110	22	9.2	18
28	15	32	30	32	60	529	396	235	102	22	9.9	18
29	15	28	31	34	---	562	400	236	95	21	9.6	18
30	15	25	33	34	---	592	377	244	90	20	8.9	18
31	16	---	31	35	---	583	---	239	---	19	8.9	---
TOTAL	437	628	947	1056	1289	6826	9575	10269	5778	1418	354.1	522.5
MEAN	14.1	20.9	30.5	34.1	46.0	220	319	331	193	45.7	11.4	17.4
MAX	16	44	52	44	71	592	586	490	306	85	18	25
MIN	13	14	19	23	37	65	218	235	90	19	8.9	7.9
AC-FT	867	1250	1880	2090	2560	13540	18990	20370	11460	2810	702	1040

CAL YR 1977 TOTAL 15384.5 MEAN 42.1 MAX 236 MIN 6.1 AC-FT 30520
WTR YR 1978 TOTAL 39099.6 MEAN 107 MAX 592 MIN 7.9 AC-FT 77550

13168500 BRUNEAU RIVER NEAR HOT SPRING, ID

LOCATION.--Lat 42°46'16", long 115°43'10", in NE¼NE¼SE¼ sec.34, T.7 S., R.6 E., Owyhee County, Hydrologic Unit 17050102, on right bank at Dunham Ranch, 1 mi (1.6 km) downstream from Hot Creek, 1.5 mi (2.4 km) south of Hot Spring, 9 mi (14.5 km) southeast of Bruneau, 16 mi (25.7 km) downstream from East Fork, and at mile 22.0 (35.4 km).

DRAINAGE AREA.--2,630 mi^2 (6,810 km^2), approximately. Mean altitude, 5,600 ft (1,710 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1909 to March 1915, October 1943 to current year.

REVISED RECORDS.--WSP 1063: 1913. WSP 1517: 1910(M). WSP 1567: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,598.5 ft (792.02 m) National Geodetic Vertical Datum of 1929. Prior to Mar. 12, 1910, nonrecording gage at site 0.2 mi (0.3 km) upstream at different datum. Mar. 12, 1910, to Mar. 15, 1915, nonrecording gage at present site and datum.

REMARKS.--Records good. Several small reservoirs on tributaries above station. Diversions above station for irrigation of about 12,900 acres (5,200 hm^2), 1966 determination.

AVERAGE DISCHARGE.--40 years (1909-14, 1943-78), 394 ft^3/s (11.16 m^3/s), 285,500 acre-ft/yr (352 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,500 ft^3/s (184 m^3/s) Mar. 1, 1910, gage height, 13.0 ft (3.96 m), from floodmark, present site and datum, from rating curve extended above 1,200 ft^3/s (34 m^3/s); minimum daily, 25 ft^3/s (0.71 m^3/s) Dec. 18, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,510 ft^3/s (42.8 m^3/s) May 16, gage height, 6.56 ft (1.999 m); minimum, 27 ft^3/s (0.76 m^3/s) Dec. 21, gage height, 2.93 ft (0.893 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

3.0	34	4.5	419
3.2	59	5.0	640
3.5	116	6.0	1,170
4.0	244	6.6	1,530

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	78	123	105	119	218	1230	1020	930	528	125	64
2	77	78	116	64	123	210	1210	985	914	510	119	64
3	76	78	112	81	123	210	1040	965	920	510	114	64
4	75	78	110	146	123	210	889	991	914	493	110	62
5	73	79	114	130	123	218	804	985	919	447	105	64
6	72	79	125	134	123	251	759	939	1010	415	103	70
7	72	81	123	128	134	337	730	904	1170	384	99	125
8	71	81	110	116	143	337	759	865	1390	377	97	125
9	71	76	103	107	160	333	794	799	1340	366	93	107
10	71	72	93	124	158	351	830	814	1410	351	89	97
11	73	74	103	128	170	396	899	919	1360	340	87	114
12	76	81	107	123	151	377	889	1010	1120	333	85	130
13	76	81	112	119	125	369	845	1020	1050	315	83	130
14	76	81	110	116	146	315	794	1100	1120	289	85	114
15	76	81	107	121	168	295	769	1320	1130	273	83	110
16	74	81	143	125	141	266	779	1480	1050	263	95	100
17	74	81	221	132	119	266	819	1380	936	260	93	100
18	73	79	178	132	132	279	759	1190	826	245	87	110
19	72	71	153	132	156	384	710	1040	799	227	85	125
20	72	53	87	134	170	528	690	970	774	207	83	135
21	72	44	39	134	158	621	715	949	749	194	79	130
22	74	64	101	134	160	695	700	1030	814	186	76	125
23	74	114	163	125	158	850	675	1160	809	179	72	125
24	74	128	153	101	163	954	630	1240	766	164	67	120
25	74	128	146	76	178	929	616	1230	705	154	67	120
26	74	123	130	107	202	855	690	1130	665	153	67	115
27	74	143	119	148	213	904	991	997	607	144	66	115
28	74	160	121	125	230	985	1160	844	569	146	66	115
29	74	143	123	105	---	1100	1150	855	565	146	66	115
30	74	132	123	125	---	1150	1160	929	551	139	66	115
31	76	---	128	121	---	1230	---	980	---	134	64	---
TOTAL	2286	2722	3796	3717	4269	16423	25496	32140	27824	8887	2676	3211
MEAN	73.7	90.7	122	120	152	530	850	1037	927	287	86.3	107
MAX	77	160	221	148	230	1230	1230	1480	1410	528	125	136
MIN	71	44	39	64	119	210	616	799	551	134	64	62
AC-FT	4530	5400	7530	7370	8470	32580	50570	63750	55190	17630	5310	6370

CAL YR 1977 TOTAL 70762 MEAN 194 MAX 1280 MIN 39 AC-FT 140400
WTR YR 1978 TOTAL 133453 MEAN 366 MAX 1480 MIN 39 AC-FT 264700

13168500 BRUNEAU RIVER NEAR HOT SPRING, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
NOV 13...	1100	80	145	--	7.5	16.0	--	--	--	--
DEC 19...	0930	169	190	--	-2.0	8.5	--	--	--	--
FEB 06...	1135	121	168	--	10.5	10.0	--	--	--	--
MAR 23...	1015	816	125	--	15.0	12.0	--	--	--	--
APR 13...	1100	842	132	--	15.5	11.5	--	--	--	--
28...	1036	1100	108	--	14.5	11.5	--	--	--	--
MAY 17...	1150	1400	93	--	16.0	10.0	--	--	--	--
JUN 16...	1130	1050	72	7.0	20.0	14.0	23	0	7.4	1.2
AUG 02...	1000	115	195	--	31.0	24.0	--	--	--	--
SEP 14...	1400	114	202	8.8	21.5	21.5	40	0	13	1.9

DATE	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
NOV 13...	--	--	--	--	--	--	--	--	--
DEC 19...	--	--	--	--	--	--	--	--	--
FEB 06...	--	--	--	--	--	--	--	--	--
MAR 23...	--	--	--	--	--	--	--	--	--
APR 13...	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--
MAY 17...	--	--	--	--	--	--	--	--	--
JUN 16...	4.7	29	.4	1.6	32	0	26	3.1	1.3
AUG 02...	--	--	--	--	--	--	--	--	--
SEP 14...	23	53	1.6	3.8	80	1	67	12	5.3

13168500 BRUNEAU RIVER NEAR HOT SPRING, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
NOV									
13...	--	--	--	--	--	--	--	--	--
DEC									
19...	--	--	--	--	--	--	--	--	--
FEB									
06...	--	--	--	--	--	--	--	--	--
MAR									
23...	--	--	--	--	--	--	--	--	--
APR									
13...	--	--	--	--	--	--	--	104	236
28...	--	--	--	--	--	--	--	--	--
MAY									
17...	--	--	--	--	--	--	--	--	--
JUN									
16...	.4	19	55	.07	156	.14	.04	150	425
AUG									
02...	--	--	--	--	--	--	--	--	--
SEP									
14...	.3	36	137	.19	42.2	.20	.01	--	--

13169500 BIG JACKS CREEK NEAR BRUNEAU, ID
(Hydrologic bench-mark station)

LOCATION.--Lat 42°47'06", long 115°59'00", in NW¼SE¼ sec.28, T.7 S., R.4 E., Owyhee County, Hydrologic Unit 17050102, Bureau of Land Management lands, on left bank, 0.2 mi (0.3 km) upstream from confluence with Little Jacks Creek, 11.5 mi (18.5 km) southwest of Bruneau, and at mile 12.7 (20.4 km).

DRAINAGE AREA.--253 mi² (655 km²).

PERIOD OF RECORD.--December 1938 to October 1949, July 1965 to current year. Prior to October 1968, published as Wickahoney Creek near Bruneau.

REVISED RECORDS.--WRD Idaho 1967: Drainage area.

GAGE.--Water-stage recorder and a self-cleaning broad-crested concrete weir. Altitude of gage is 2,810 ft (856 m), by barometer. December 1938 to October 1949 at site 145 ft (44.2 m) upstream at different datum.

REMARKS.--Records good. No diversion or regulation.

AVERAGE DISCHARGE.--23 years (1940-49, 1966-78), 3.57 ft³/s (1.01 m³/s), 2,590 acre-ft/yr (3.19 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,100 ft³/s (59.5 m³/s) Jan. 22, 1943, gage height, 12.4 ft (3.78 m), from high-water mark, site and datum then in use), on basis of slope-area measurement of peak flow; no flow for long periods each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 342 ft³/s (9.68 m³/s) Mar. 22, gage height, 3.52 ft (1.073 m); no flow for many days.

Rating table (gage height, in feet, and discharge, in cubic feet per second)

1.59	0.0	2.1	5.4	2.7	53
1.70	.10	2.2	9.0	3.0	110
1.8	.56	2.3	14	3.3	201
1.9	1.4	2.5	29	3.6	336
2.0	3.0				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	37	21	7.2	1.9	1.5	1.8
2	.00	.00	.00	.00	.00	.00	45	19	7.2	1.8	1.5	1.7
3	.00	.00	.00	.00	.00	.00	39	15	6.9	1.8	1.5	1.5
4	.00	.00	.00	.00	.00	.00	36	14	7.2	3.0	1.5	1.3
5	.00	.00	.00	.00	.00	.00	38	13	6.9	3.2	1.4	1.7
6	.00	.00	.00	.00	.00	.00	35	13	6.9	3.0	1.4	2.6
7	.00	.00	.00	.00	.00	.00	36	12	6.5	3.0	1.5	3.4
8	.00	.00	.00	.00	.00	.47	38	12	6.5	3.2	1.3	3.8
9	.00	.00	.00	.00	.00	3.6	37	12	6.1	3.0	1.3	3.6
10	.00	.00	.00	.00	.00	12	35	11	5.5	3.0	1.3	3.0
11	.00	.00	.00	.00	.00	22	29	11	5.5	2.6	1.4	3.2
12	.00	.00	.00	.00	.00	23	27	11	5.5	2.3	1.3	3.0
13	.00	.00	.00	.00	.00	19	26	11	5.5	1.9	1.5	2.6
14	.00	.00	.00	.00	.00	15	24	10	5.5	1.8	2.3	2.3
15	.00	.00	.00	.00	.00	12	23	9.1	4.9	1.5	2.1	2.1
16	.00	.00	.00	.00	.00	10	23	8.7	4.1	1.5	3.2	2.1
17	.00	.00	.00	.00	.00	8.7	22	9.1	3.8	1.7	4.9	2.1
18	.00	.00	.00	.00	.00	19	20	8.7	3.8	1.8	4.1	2.4
19	.00	.00	.00	.00	.00	64	19	8.7	3.4	1.7	3.2	2.8
20	.00	.00	.00	.00	.00	82	18	8.7	3.0	1.5	2.4	2.3
21	.00	.00	.00	.00	.00	88	18	8.3	2.6	1.5	2.1	1.9
22	.00	.00	.00	.00	.00	148	18	8.3	2.6	1.5	2.1	1.8
23	.00	.00	.00	.00	.00	190	17	8.3	2.3	1.4	2.1	1.5
24	.00	.00	.00	.00	.00	123	16	7.9	2.1	1.3	2.3	1.7
25	.00	.00	.00	.00	.00	75	14	7.9	2.8	1.1	2.1	1.5
26	.00	.00	.00	.00	.00	73	14	7.9	2.8	1.1	1.9	1.5
27	.00	.00	.00	.00	.00	62	16	7.9	2.3	1.3	2.3	1.4
28	.00	.00	.00	.00	.00	52	22	7.5	1.9	1.5	2.1	1.3
29	.00	.00	.00	.00	---	41	25	7.5	1.8	1.7	1.9	1.4
30	.00	.00	.00	.00	---	38	22	7.5	1.9	1.7	1.8	1.5
31	.00	---	.00	.00	---	35	---	7.2	---	1.5	1.7	---
TOTAL	.00	.00	.00	.00	.00	1215.77	789	324.2	135.0	60.8	63.0	64.8
MEAN	.000	.000	.000	.000	.000	39.2	26.3	10.5	4.50	1.96	2.03	2.16
MAX	.00	.00	.00	.00	.00	190	45	21	7.2	3.2	4.9	3.8
MIN	.00	.00	.00	.00	.00	.00	14	7.2	1.8	1.1	1.3	1.3
AC-FT	.00	.00	.00	.00	.00	2410	1560	643	268	121	125	129

CAL YR 1977 TOTAL 0.00 MEAN .000 MAX .00 MIN .00 AC-FT .00
WTR YR 1978 TOTAL 2652.57 MEAN 7.27 MAX 190 MIN .00 AC-FT 5260

13169500 BIG JACKS CREEK NEAR BRUNEAU, ID--Continued
(Hydrologic bench-mark station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967-76, March to September 1978.

REMARKS.--Because of insignificant or no flow, unable to sample for water quality from September 1976 to March 1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)
MAR 24...	1200	112	102	7.6	19.0	7.5	10.7	99	1100	130
APR 11...	1100	28	128	8.6	16.0	11.0	10.4	104	130	K13
MAY 15...	1515	8.4	*141	8.7	9.0	12.0	9.7	93	710	550
JUN 05...	1030	6.9	*144	8.0	22.0	17.0	9.3	106	630	570
JUL 12...	1100	2.2	162	9.2	24.0	19.0	14.1	166	200	430
AUG 08...	1520	1.5	140	8.9	38.0	27.0	10.2	139	>800	140
SEP 07...	1015	3.4	*151	7.8	17.0	16.0	8.9	99	1400	--

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)
MAR 24...	580	30	0	9.5	1.6	6.2	28	.5	2.9	44
APR 11...	40	35	0	10	2.5	9.9	35	.7	3.6	49
MAY 15...	430	44	0	12	3.5	11	33	.7	4.1	2
JUN 05...	530	47	0	13	3.6	12	33	.8	4.1	73
JUL 12...	180	52	0	14	4.1	12	31	.7	4.5	46
AUG 08...	65	53	0	15	3.7	14	34	.8	5.2	54
SEP 07...	>2000	46	0	13	3.3	15	39	1.0	4.5	83

DATE	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
MAR 24...	0	36	5.8	3.2	.2	21	75	72	72	.10
APR 11...	2	44	7.4	6.6	.4	32	102	--	99	.14
MAY 15...	41	70	11	6.7	.4	34	110	--	125	.15
JUN 05...	0	52	9.4	5.9	.4	37	111	--	153	.15
JUL 12...	22	74	6.8	5.7	.5	34	120	--	126	.16
AUG 08...	17	73	9.2	6.1	.6	36	134	--	133	.18
SEP 07...	0	68	8.5	5.9	.5	39	117	--	131	.16

* Not a field determination.

13169500 BIG JACKS CREEK NEAR BRUNEAU, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
MAR 24...	22.7	450	.60	.14	2	100	2	10	12	7000
APR 11...	7.82	--	.25	.04	2	200	2	0	3	690
MAY 15...	2.49	--	.00	.08	--	--	--	--	--	--
JUN 05...	2.08	--	.04	.04	--	--	--	--	--	--
JUL 12...	.72	--	.00	.00	--	--	--	--	--	--
AUG 08...	.54	--	.01	.01	--	--	--	--	--	--
SEP 07...	1.07	--	.02	.03	--	--	--	--	--	--

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	SELE-NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
MAR 24...	14	280	.0	0	0	40	.00	494	149
APR 11...	16	10	.0	0	0	10	.00	9	.69
MAY 15...	--	--	--	--	--	--	--	--	--
JUN 05...	--	--	--	--	--	--	--	--	--
JUL 12...	--	--	--	--	--	--	--	--	--
AUG 08...	--	--	--	--	--	--	--	--	--
SEP 07...	--	--	--	--	--	--	--	--	--

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	URANIUM DIS-SOLVED, EXTRAC-TION (UG/L)
MAR 24...	1200	1.1	70	4.5	20	4.2	10	.15	.24

13169500 BIG JACKS CREEK NEAR BRUNEAU, ID--Continued

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL (UG/L)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL (UG/L)
MAR 24...	1200	--	0	--	.0	--	0	--	.0	--	.0	--
APR 11...	1100	.0	0	.00	.0	.0	0	.00	.0	.00	.0	.00

DATE	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)
MAR 24...	.0	--	--	.0	--	.0	--	--	.0	--	.0	--
APR 11...	.0	.00	.00	.0	.00	.0	.00	.00	.0	.00	.0	.00

DATE	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL (UG/L)	METHYL PARATHION, TOTAL (UG/L)	METHYL TRITHION, TOTAL (UG/L)	PARATHION, TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
MAR 24...	.0	--	--	--	--	--	0	--	--	--	--
APR 11...	.0	.00	.00	.00	.00	0	0	.00	.00	.00	.00

13172500 SNAKE RIVER NEAR MURPHY, ID

LOCATION.--Lat 43°17'31", long 116°25'12", in NW¼NE¼SE¼ sec.35, T.1 S., R.1 W., Ada County, Hydrologic Unit 17050103, on right bank 4.2 mi (6.8 km) downstream from Swan Falls powerplant, 7.5 mi (12.1 km) northeast of Murphy, and at mile 453.5 (729.7 km).

DRAINAGE AREA.--41,900 mi² (108,500 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August to October 1912, August 1913 to current year.

REVISED RECORDS.--WSP 1737: 1933(M).

GAGE.--Water-stage recorder. Datum of gage is 2,271.17 ft (692.253 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 7, 1914, nonrecording gage and Sept. 7, 1914, to Sept. 30, 1935, water-stage recorder at site 3.5 mi (5.6 km) upstream at datum 9.79 ft (2.984 m) higher.

REMARKS.-- Records good. Major regulation by American Falls Reservoir 260.5 mi (419.1 km) upstream (see sta 13076500). Diurnal fluctuation caused by hydroelectric plants upstream. Diversions above station for irrigation of about 2,590,000 acres (1,050,000 hm²) of which about 701,000 acres (284,000 hm²) are by withdrawals from ground water (1966 determination).

AVERAGE DISCHARGE.--65 years, 11,040 ft³/s (312.7 m³/s) 7,998,000 acre-ft/yr (9,860 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 47,300 ft³/s (1,340 m³/s) June 22, 1918, gage height, 13.95 ft (4.252 m), site and datum then in use; minimum recorded, 3,900 ft³/s (110 m³/s) July 9, 1949, gage height, 2.53 ft (0.771 m); minimum daily, 5,120 ft³/s (145 m³/s) June 30, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 19,100 ft³/s (541 m³/s) Apr. 22, gage height, 7.62 ft (2.323 m); minimum discharge, 4,860 ft³/s (138 m³/s) July 17, gage height, 2.73 ft (0.832 m); minimum daily, 5,270 ft³/s (149 m³/s) July 17.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1 to Dec. 22)

2.8	5,040	6.0	13,900
4.0	8,240	8.0	20,400

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7480	7910	8300	8000	8840	9370	12200	15000	10700	5460	6290	6860
2	7030	7790	8310	8190	8970	9510	11000	15000	8680	5470	6030	6850
3	7030	7810	8280	8060	8810	9850	11000	14400	7540	5550	5690	6840
4	7570	7780	8050	8110	9160	10200	10100	12500	7240	5430	5750	6830
5	7700	7810	8130	8030	8940	9800	10500	11900	7270	6110	5940	6980
6	7700	7480	8550	8190	8430	10200	10400	10700	6680	6340	6110	8450
7	7480	7670	8240	8240	8350	10600	11400	14800	7400	6880	6290	8800
8	7540	7870	8380	7590	9430	10400	14500	14200	7210	7160	5900	9440
9	7350	7660	8360	7920	10900	9960	12900	13400	7080	6610	6140	9490
10	7380	7850	8210	8410	9450	10100	13500	13900	6840	7000	6020	9500
11	7430	7750	8320	8490	8650	10900	13700	13100	7050	5800	5720	10400
12	8050	7810	8030	8410	9640	10300	13300	11600	8000	5630	5790	9650
13	7970	7650	8270	8650	8190	9800	13900	11300	8030	5910	5810	10600
14	7970	7600	8420	8050	8650	10900	13600	11900	7430	6170	5990	12900
15	7950	7490	9140	8110	8050	10100	11800	12700	7430	5830	6360	11400
16	8000	7860	10400	8760	9050	9750	12000	13500	7430	5620	6780	11000
17	7760	8180	9690	10500	8300	10400	11700	12100	6700	5270	6580	8510
18	7730	8100	9070	10800	8970	10400	12000	9320	5950	5560	7170	8950
19	7890	8100	7800	9100	8680	10400	12100	10200	6600	5380	7640	9070
20	7780	7680	8190	8300	8140	10700	11400	8760	6970	5410	7610	9540
21	7590	7920	8430	8840	8300	11400	15800	9320	6390	5380	7530	9730
22	7520	7960	7470	8050	9080	11000	17600	9800	6800	5390	7670	10000
23	8050	8010	8270	7970	8840	11900	16700	12300	6810	5510	7480	10100
24	7650	8150	7860	8620	9320	12400	16700	11600	6540	6420	6910	10100
25	7670	8380	8190	9160	9270	12300	16000	11400	6030	5760	7120	10000
26	7970	8640	8000	9100	9130	11600	16000	11900	6000	5720	6810	10000
27	7840	8390	8300	8920	9350	10700	15200	12600	5590	5880	7030	9920
28	7920	8610	8140	8920	9880	11600	15600	11900	5960	5750	6870	8840
29	7950	8620	8320	8840	---	12000	15400	11900	5780	5730	6790	9630
30	7700	8360	8410	8730	---	11000	15100	11500	5780	5890	6910	8480
31	7700	---	8190	8860	---	11400	---	11100	---	5960	7050	---
TOTAL	238750	238890	260420	265940	250770	330940	403100	375800	209910	181980	203780	278860
MEAN	7702	7963	8401	8579	8956	10680	13440	12120	6997	5870	6574	9295
MAX	8050	8640	10400	10800	10900	12400	17600	15000	10700	7160	7670	12900
MIN	7030	7480	7800	7590	8050	9370	10100	8760	5590	5270	5690	6830
AC-FT	473600	473800	516500	527500	497400	656400	799500	745400	416400	361000	404200	553100

CAL YR 1977 TOTAL 2915740 MEAN 7988 MAX 12700 MIN 5120 AC-FT 5783000
WTR YR 1978 TOTAL 3239140 MEAN 8874 MAX 17600 MIN 5270 AC-FT 6425000

13172500 SNAKE RIVER NEAR MURPHY, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

REMARKS.--Miscellaneous chemical data published for water years 1973-74.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
NOV 01...	1054	8060	504	--	--	13.0	--	--	--
DEC 20...	1100	9250	528	--	-2.0	4.0	--	--	--
FEB 08...	1015	8650	510	--	5.0	7.0	--	--	--
MAR 16...	1052	8660	428	--	--	10.0	--	--	--
APR 25...	1100	15800	502	*8.5	20.5	13.5	200	34	48
MAY 24...	1030	11800	491	--	--	13.5	--	--	--
JUN 19...	1115	5960	392	--	17.5	21.5	--	--	--
SEP 22...	1120	10300	501	8.7	29.5	15.0	200	29	47

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
NOV 01...	--	--	--	--	--	--	--	--	--
DEC 20...	--	--	--	--	--	--	--	--	--
FEB 08...	--	--	--	--	--	--	--	--	--
MAR 16...	--	--	--	--	--	--	--	--	--
APR 25...	19	30	24	.9	4.6	200	--	160	49
MAY 24...	--	--	--	--	--	--	--	--	--
JUN 19...	--	--	--	--	--	--	--	--	--
SEP 22...	20	33	26	1.0	4.5	200	4	170	53

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
NOV 01...	--	--	--	--	--	--	--	--
DEC 20...	--	--	--	--	--	--	--	--
FEB 08...	--	--	--	--	--	--	--	--
MAR 16...	--	--	--	--	--	--	--	--
APR 25...	26	.7	20	298	.41	12700	.55	.09
MAY 24...	--	--	--	--	--	--	--	--
JUN 19...	--	--	--	--	--	--	--	--
SEP 22...	27	.7	25	317	.43	8820	.87	.05

* Not a field determination.

13172850 SNAKE RIVER AT MARSING, ID

LOCATION.--Lat 43°32'54", long 116°47'57", in NW¼SW¼SE¼ sec.34, T.3 N., R.4 W., Canyon-Owyhee County line, Hydrologic Unit 17050103, at State Highway 72 crossing at Marsing.
DRAINAGE AREA.--Not determined.
PERIOD OF RECORD.--Water years 1970-72, 1974 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, CHEMICAL (LOW LEVEL) (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	HARDNESS (MG/L AS CACO3)
OCT												
12...	1430	8680	*523	8.3	15.0	14.0	3	11.2	117	8	64	--
NOV												
10...	1330	8160	525	8.9	17.5	11.0	6	14.5	142	74	32	220
DEC												
19...	1500	7760	*545	8.9	5.0	6.5	3	12.5	110	0	--	--
JAN												
10...	1200	8070	540	8.3	6.0	5.5	4	11.6	99	17	40	--
FEB												
23...	1030	8800	477	7.9	3.5	6.5	4	11.9	97	1	32	--
MAR												
16...	1215	11300	*502	8.7	15.0	9.0	10	11.9	111	15	K15	--
APR												
17...	1200	13600	440	8.8	16.0	12.0	15	12.5	125	22	57	--
MAY												
11...	1200	14300	385	9.1	17.0	14.0	8	11.4	119	35	32	--
JUN												
06...	1230	6370	412	8.7	30.0	22.0	5	12.7	156	16	K21	--
JUL												
11...	1330	5890	367	8.4	28.0	22.5	6	11.9	148	13	30	--
AUG												
09...	1115	9320	492	8.4	29.0	23.0	5	10.1	125	15	130	190
SEP												
08...	1515	9740	498	7.9	20.5	18.5	3	11.2	129	43	K210	--

DATE	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
OCT												
12...	--	--	--	--	--	--	--	230	0	189	--	--
NOV												
10...	33	52	23	36	25	1.0	4.8	170	31	191	59	28
DEC												
19...	--	--	--	--	--	--	--	190	26	199	--	--
JAN												
10...	--	--	--	--	--	--	--	210	0	172	--	--
FEB												
23...	--	--	--	--	--	--	--	200	0	164	--	--
MAR												
16...	--	--	--	--	--	--	--	190	12	176	--	--
APR												
17...	--	--	--	--	--	--	--	170	12	159	--	--
MAY												
11...	--	--	--	--	--	--	--	160	23	170	--	--
JUN												
06...	--	--	--	--	--	--	--	140	19	147	--	--
JUL												
11...	--	--	--	--	--	--	--	150	24	163	--	--
AUG												
09...	18	43	21	35	28	1.1	5.2	200	5	172	55	30
SEP												
08...	--	--	--	--	--	--	--	200	0	164	--	--

* Not a field determination.
K Results based on count outside ideal colony count range.

13172850 SNAKE RIVER AT MARSING, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT												
12...	32	325	.44	7620	10	.74	.03	.62	.65	1.4	6.2	.05
NOV												
10...	34	314	.43	6920	11	.92	.01	.82	.83	1.8	7.7	.07
DEC												
19...	34	334	.45	7000	12	1.3	.01	.29	.30	1.6	7.1	.07
JAN												
10...	--	--	--	--	15	1.4	.02	.02	.04	1.4	6.4	.08
FEB												
23...	32	306	.42	7270	22	1.2	.01	.15	.16	1.4	6.0	.07
MAR												
16...	26	303	.41	9240	29	1.0	.13	.43	.56	1.6	6.9	.03
APR												
17...	20	295	.40	10800	69	.55	.06	.42	.48	1.0	4.6	.09
MAY												
11...	17	264	.36	10200	43	.00	.01	.62	.63	.63	2.8	.11
JUN												
06...	17	254	.35	4370	6	.26	.01	1.6	1.6	1.9	8.2	.03
JUL												
11...	23	267	.36	4250	35	.15	.00	1.0	1.0	1.2	5.1	.05
AUG												
09...	25	313	.43	7880	24	.45	.00	.54	.54	.99	4.4	.04
SEP												
08...	27	352	.48	9260	24	.71	.01	.60	.61	1.3	5.8	.07

DATE	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	OIL AND GREASE (MG/L)
OCT											
12...	4	<10	10	<10	190	<100	.0	0	0	1.9	0
NOV											
10...	4	5	8	11	170	56	.0	1	20	5.4	0
DEC											
19...	4	1	0	10	90	8	.0	1	10	1.8	0
JAN											
10...	5	9	10	14	460	13	.0	0	30	1.5	0
FEB											
23...	4	6	0	4	170	70	.0	1	10	2.0	0
MAR											
16...	4	8	10	2	540	36	.0	0	40	3.4	0
APR											
17...	4	1	0	3	980	11	.0	0	10	4.2	0
MAY											
11...	4	2	0	5	2400	6	.0	0	10	4.3	0
JUN											
06...	5	4	0	4	490	8	.0	1	20	3.5	0
JUL											
11...	3	3	0	6	750	20	.2	1	40	4.4	0
AUG											
09...	5	3	0	7	320	13	.0	0	20	4.1	0
SEP											
08...	9	3	0	7	730	11	.0	0	30	4.5	0

13176000 OWYHEE RIVER ABOVE CHINA DIVERSION DAM, NEAR OWYHEE, NV

LOCATION.--Lat 41°55'20", long 116°04'10", in NW¼ sec.6, T.46 N., R.53 E., Elko County, Hydrologic Unit 17050104, on right bank 1,000 ft (305 m) downstream from Skull Creek, 1 mi (1.6 km) upstream from China diversion dam, and 2 mi (3.2 km) southeast of Owyhee, and at mile 262.0 (422 km).

DRAINAGE AREA.--458 mi² (1,186 km²).

PERIOD OF RECORD.--March 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 5,425 ft (1,654 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1939, at datum 1.48 ft (0.451 m) higher.

REMARKS.--Records good except those for winter months, which are poor. Numerous diversions above station for irrigation. Flow partly regulated by Wild Horse Reservoir.

AVERAGE DISCHARGE.--39 years, 144 ft³/s (4.078 m³/s), 104,300 acre-ft/yr (129 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,790 ft³/s (79.0 m³/s) about May 18, 1975, gage height, 10.84 ft (3.304 m), from inside high-water marks; minimum, 1.8 ft³/s (0.051 m³/s) Nov. 16, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 547 ft³/s (15.49 m³/s) Apr. 27, gage height, 6.51 ft (1.984 m); minimum daily, 12 ft³/s (0.34 m³/s) Nov. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	16	20	20	29	62	409	472	212	243	170	73
2	37	16	19	23	31	67	365	451	244	241	165	72
3	36	15	21	27	31	76	308	449	260	247	165	72
4	35	15	23	24	30	91	288	438	244	201	169	72
5	35	16	20	25	30	101	271	408	238	174	165	80
6	34	16	20	24	32	132	252	380	254	155	170	88
7	34	16	20	26	35	127	264	352	256	127	166	77
8	35	14	16	27	37	125	270	334	253	109	122	68
9	35	14	16	24	38	145	278	337	247	107	106	55
10	34	14	19	24	36	164	273	368	242	97	123	51
11	34	17	19	25	33	155	294	392	249	80	127	58
12	35	17	22	23	32	143	301	386	222	60	115	46
13	32	15	20	23	33	114	299	407	212	56	122	36
14	22	13	26	24	34	104	290	443	202	55	131	31
15	19	17	49	28	31	90	297	455	220	52	131	29
16	19	16	45	30	30	89	316	412	256	51	129	27
17	18	14	38	30	30	106	300	361	264	49	132	26
18	17	15	31	29	32	151	285	323	261	49	125	27
19	18	13	25	30	35	192	279	301	257	49	111	29
20	18	12	30	31	34	223	286	288	245	48	100	29
21	17	23	35	29	37	251	281	284	234	72	101	28
22	17	32	36	27	38	314	267	292	225	87	100	28
23	17	38	34	25	41	368	252	293	259	87	100	27
24	17	29	31	23	45	351	250	322	264	92	100	26
25	17	38	26	26	50	295	266	302	263	87	105	26
26	17	37	25	28	53	296	422	282	264	134	109	25
27	16	34	26	27	56	317	477	261	262	152	107	25
28	16	28	25	26	59	348	475	246	254	162	107	24
29	16	23	25	28	---	361	491	236	249	174	88	23
30	16	22	25	27	---	404	489	229	247	177	75	23
31	16	---	23	28	---	417	---	220	---	176	74	---
TOTAL	767	605	810	811	1032	6179	9595	10724	7359	3650	3810	1301
MEAN	24.7	20.2	26.1	26.2	36.9	199	320	346	245	118	123	43.4
MAX	38	38	49	31	59	417	491	472	264	247	170	88
MIN	16	12	16	20	29	62	250	220	202	48	74	23
AC-FT	1520	1200	1610	1610	2050	12260	19030	21270	14600	7240	7560	2580

CAL YR 1977 TOTAL 25356 MEAN 69.5 MAX 228 MIN 12 AC-FT 50290
WTR YR 1978 TOTAL 46643 MEAN 128 MAX 491 MIN 12 AC-FT 92520

13177800 SOUTH FORK OWYHEE RIVER NEAR WHITEROCK, NV

LOCATION.--Lat 41°48'00", long 116°29'00", in NE¼ sec.16, T.45 N., R.49 E., Elko County, Hydrologic Unit 17050105, on left bank 500 ft (152 m) downstream from Rye Grass Creek, 1.8 mi (2.9 km) upstream from Chimney Creek, and 17 mi (27 km) northwest of Whiterock, and at mile 54.0 (87.0 km).

DRAINAGE AREA.--1,080 mi² (2,800 km²), approximately.

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,900 ft (1,490 m), from topographic map.

REMARKS.--Records good. Many diversions for irrigation of hay meadows above station. Flow partly regulated by four small reservoirs, total capacity, about 16,100 acre-ft (19.8 hm³).

AVERAGE DISCHARGE.--23 years, 162 ft³/s (4.588 m³/s), 117,400 acre-ft/yr (145 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,830 ft³/s (108 m³/s) June 5, 1963, gage height, 7.55 ft (2.301 m); no flow Oct. 1-12, 1955, part of Sept. 17, 28, 1960, Aug. 27, 31, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,050 ft³/s (58.1 m³/s) Apr. 27 (2100 hours), gage height, 5.85 ft (1.783 m), only peak above base of 600 ft³/s (17.0 m³/s); minimum daily, 4.5 ft³/s (0.127 m³/s) Aug. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	26	35	40	51	90	222	1290	225	73	52	25
2	22	26	34	40	48	88	229	1150	206	59	36	26
3	21	26	35	41	49	107	249	1000	219	51	36	25
4	20	26	35	44	52	156	260	892	219	71	36	25
5	20	28	34	45	69	156	275	835	212	120	30	30
6	23	30	29	44	81	184	267	821	178	120	28	61
7	22	30	26	42	75	187	282	701	178	95	25	83
8	24	28	28	37	73	145	351	570	175	95	21	79
9	27	29	26	46	73	170	391	483	175	102	20	52
10	27	32	30	39	73	209	343	448	170	97	19	49
11	22	32	29	35	71	164	306	414	199	83	15	51
12	26	32	34	39	59	156	298	351	206	73	14	43
13	25	31	35	39	58	140	290	338	172	69	13	40
14	24	31	31	37	65	127	282	330	158	69	13	34
15	24	30	36	39	58	115	275	347	153	63	12	30
16	24	35	34	46	59	104	275	419	157	59	7.3	27
17	24	32	37	54	58	102	282	483	150	63	6.7	25
18	24	31	44	49	59	112	264	463	142	69	4.5	26
19	25	25	42	54	69	122	232	414	135	67	5.9	27
20	25	32	43	54	71	132	206	364	120	69	5.9	30
21	25	31	42	52	92	145	193	322	104	75	6.2	29
22	24	34	43	49	92	190	181	290	95	71	7.8	26
23	23	39	43	44	92	249	167	275	85	65	9.4	24
24	23	58	44	27	117	264	156	400	73	59	14	23
25	23	59	44	40	161	239	150	553	61	52	17	22
26	23	52	44	58	164	229	547	564	67	36	19	21
27	24	44	44	67	137	222	1640	443	67	42	22	22
28	24	42	44	58	104	203	1770	356	67	75	23	21
29	25	39	42	49	---	190	1530	302	59	83	24	20
30	25	36	40	51	---	196	1420	260	63	77	24	20
31	26	---	39	53	---	206	---	242	---	75	23	---
TOTAL	736	1026	1146	1414	2230	5099	13333	16120	4290	2277	589.7	1016
MEAN	23.7	34.2	37.0	45.6	79.6	164	444	520	143	73.5	19.0	33.9
MAX	27	59	44	67	164	264	1770	1290	225	120	52	83
MIN	20	25	26	27	48	88	150	242	59	36	4.5	20
AC-FT	1460	2040	2270	2800	4420	10110	26450	31970	8510	4520	1170	2020

CAL YR 1977 TOTAL 12211.3 MEAN 33.5 MAX 121 MIN 5.2 AC-FT 24220
WTR YR 1978 TOTAL 49276.7 MEAN 135 MAX 1770 MIN 4.5 AC-FT 97740

13181000 OWYHEE RIVER NEAR ROME, OR

LOCATION.--Lat 42°52'02", long 117°38'52", in SE¼NE¼ sec.14, T.31 S., R.41 E., Malheur County, Hydrologic Unit 17050107, on right bank 0.5 mi (0.8 km) downstream from Jordan Creek, 2.6 mi (4.2 km) north of Rome, and at mile 122.4 (196.9 km).

DRAINAGE AREA.--8,000 mi^2 (20,700 km^2), approximately.

PERIOD OF RECORD.--October 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,344.20 ft (1,019.312 m) National Geodetic Vertical Datum of 1929. Prior to Feb. 10, 1960, at datum 0.24 ft (0.073 m) lower.

REMARKS.--Records good. Flow regulated by Antelope Reservoir, capacity, 70,000 acre-ft (86.3 hm^3), increased in 1970), Wild Horse Reservoir, capacity, 32,690 acre-ft (40.3 hm^3), and numerous small reservoirs. Diversions above station for irrigation.

AVERAGE DISCHARGE.--29 years, 913 ft^3/s (25.86 m^3/s), 661,500 acre-ft/yr (816 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,500 ft^3/s (949 m^3/s) Dec. 24, 1964, gage height, 16.7 ft (5.09 m), from floodmark; minimum, 42 ft^3/s (1.19 m^3/s) Aug. 12, 1954, July 28, Aug. 5, 1961, July 31, 1968.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,400 ft^3/s (153 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 23	1330	9990	283	9.93	3.027	Apr. 27	1630	*18000	510	13.18	4.017
Apr. 2	2230	7180	203	8.52	2.597						

Minimum discharge, 86 ft^3/s (2.44 m^3/s) Dec. 12, 13 (result of freezeup).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	140	119	198	250	316	1350	5220	6200	810	304	166	169
2	135	119	156	198	304	1090	5810	5450	755	300	189	176
3	133	120	144	183	320	939	5660	4840	720	312	192	166
4	133	121	168	249	329	1040	3990	4180	678	324	202	163
5	130	126	176	268	468	2120	3260	3810	651	356	199	157
6	124	129	153	341	600	3620	3290	3370	664	360	195	160
7	121	132	141	334	1110	4490	2850	3010	642	360	179	182
8	121	133	152	300	1510	3920	2880	2750	597	396	176	186
9	119	132	135	308	1430	3750	2960	2410	543	396	166	182
10	117	130	111	325	1260	4540	2780	2140	511	364	157	205
11	115	132	103	469	1110	4070	2580	2000	502	344	153	238
12	115	134	91	490	854	3620	2420	1990	534	324	150	242
13	115	129	92	484	710	3160	2210	1870	511	300	153	222
14	125	128	95	478	650	2280	2040	1690	511	273	150	212
15	126	134	159	538	640	1860	1930	1610	489	248	147	212
16	122	141	610	721	580	1550	1880	1630	440	232	163	199
17	115	141	1050	984	510	1520	1880	1630	416	215	176	192
18	120	138	629	1020	510	3120	1980	1600	404	202	189	182
19	119	136	440	1000	459	4500	1880	1510	412	192	176	173
20	121	134	305	871	520	4990	1810	1390	396	189	169	169
21	122	124	178	799	860	5410	1720	1280	372	192	169	173
22	119	127	184	755	1130	5480	1720	1180	372	195	160	169
23	118	111	231	695	1280	8270	1660	1070	364	192	150	166
24	119	142	273	600	1300	7470	1550	1020	352	186	150	163
25	126	170	275	459	1200	6020	1440	1010	328	186	147	166
26	120	185	252	347	1280	5210	1800	1130	308	182	147	173
27	120	249	228	433	1620	5530	11700	1320	300	176	157	163
28	123	189	237	414	1670	5990	15600	1290	280	169	157	153
29	118	153	226	360	---	6300	10000	1130	284	163	150	144
30	118	181	234	369	---	6250	8000	975	296	153	160	138
31	118	---	252	324	---	5530	---	876	---	147	169	---
TOTAL	3787	4239	7678	15366	24530	124989	114500	67361	14442	7932	5163	5395
MEAN	122	141	248	496	876	4032	3817	2173	481	256	167	180
MAX	140	249	1050	1020	1670	8270	15600	6200	810	396	202	242
MIN	115	111	91	183	304	939	1440	876	280	147	147	138
AC-FT	7510	8410	15230	30480	48660	247900	227100	133600	28650	15730	10240	10700

CAL YR 1977 TOTAL 66665 MEAN 183 MAX 1050 MIN 67 AC-FT 132200
WTR YR 1978 TOTAL 395382 MEAN 1083 MAX 15600 MIN 91 AC-FT 784200

13184500 MIDDLE FORK BOISE RIVER NEAR TWIN SPRINGS, ID

LOCATION.--Lat 43°42'49", long 115°37'50", in NW¼SE¼NW¼ sec.4, T.4 N., R.7 E., Boise County, Hydrologic Unit 17050111, Boise National Forest, on left bank 1,000 ft (300 m) upstream from confluence with North Fork Boise River, 1,000 ft (300 m) upstream from Troutdale guard station, and 4.5 mi (7.24 km) northeast of Twin Springs.

DRAINAGE AREA.--382 mi² (989 km²).

PERIOD OF RECORD.--October 1946 to September 1950, October 1976 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,480.60 ft (1,060.887 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for periods of ice effect or no gage-height record, which are fair. No regulation or diversion.

AVERAGE DISCHARGE.--6 years, 583 ft³/s (16.51 m³/s), 20.73 in/yr (527 mm/yr), 422,400 acre-ft/yr (521 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,370 ft³/s (124 m³/s) May 29, 1948, gage height, 7.40 ft (2.256 m); minimum, 65 ft³/s (1.84 m³/s) Feb. 6, 1949, gage height, 1.12 ft (0.341 m), result of snowslide upstream.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,900 ft³/s (53.8 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 15	1600	2190	62.0	5.42	1.652
May 23	1630	2400	68.0	5.65	1.722
June 10	0500	*3500	99.1	6.79	2.070

Minimum daily discharge, 93 ft³/s (2.63 m³/s) Nov. 19.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 14 to June 22; stage-discharge relation affected by ice Nov. 19, 20, Feb. 16-18)

1.8	81	3.5	732
2.0	120	4.0	1,030
2.5	267	5.0	1,760
3.0	472	6.8	3,410

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	179	155	233	172	205	283	1770	1340	1580	2210	516	262
2	170	157	289	163	206	287	1510	1380	1680	1980	487	255
3	164	171	472	269	218	300	1230	1490	1720	1900	462	249
4	160	157	408	249	205	295	1070	1520	1870	1860	443	246
5	157	171	322	232	207	306	943	1380	2280	1670	426	269
6	154	189	285	233	239	326	851	1250	2730	1510	414	383
7	157	168	267	215	253	344	848	1180	3040	1540	400	452
8	156	160	243	212	281	345	798	1180	3130	1670	386	367
9	152	142	217	214	273	369	805	1230	3210	1610	373	323
10	150	155	233	214	261	409	846	1490	3330	1600	364	341
11	148	155	223	220	260	469	971	1650	2570	1690	352	368
12	149	152	236	230	248	479	992	1530	2130	1490	345	343
13	147	152	243	210	232	441	968	1470	2120	1380	367	339
14	145	152	452	215	234	400	934	1690	2500	1320	392	321
15	144	183	1200	230	230	364	954	2130	2580	1350	358	308
16	142	198	818	240	210	343	1050	2000	2290	1360	380	296
17	141	166	555	250	180	358	988	1740	2050	1240	369	286
18	141	147	451	260	180	442	916	1580	2080	1080	346	295
19	140	93	378	250	217	579	886	1440	2030	994	333	295
20	139	113	280	240	218	672	898	1420	2050	940	319	285
21	139	122	300	230	225	735	862	1650	2150	886	309	283
22	139	168	317	220	241	803	820	2100	2180	814	306	277
23	138	177	302	200	263	893	773	2330	2290	773	308	270
24	138	183	294	145	286	933	755	2100	2390	738	297	268
25	137	201	272	200	295	851	808	1790	2290	721	285	261
26	137	408	259	230	299	889	1000	1540	1900	698	281	256
27	137	374	242	225	299	1010	1160	1390	1700	671	278	250
28	138	285	224	205	286	1190	1210	1380	1830	654	272	247
29	140	264	252	220	---	1340	1270	1540	2150	627	268	245
30	159	257	245	210	---	1590	1320	1640	2210	591	264	243
31	162	---	231	200	---	1700	---	1580	---	550	267	---
TOTAL	4599	5575	10743	6803	6751	19745	30206	49130	68060	38117	10967	8883
MEAN	148	186	347	219	241	637	1007	1585	2269	1230	354	296
MAX	179	408	1200	269	299	1700	1770	2330	3330	2210	516	452
MIN	137	93	217	145	180	283	755	1180	1580	550	264	243
CFSM	.39	.49	.91	.57	.63	1.67	2.64	4.15	5.94	3.22	.93	.78
IN.	.45	.54	1.05	.66	.66	1.92	2.94	4.78	6.63	3.71	1.07	.87
AC-FT	9120	11060	21310	13490	13390	39160	59910	97450	135000	75610	21750	17620

CAL YR 1977 TOTAL 89980 MEAN 247 MAX 1200 MIN 93 CFSM .65 IN 8.76 AC-FT 178500
WTR YR 1978 TOTAL 259579 MEAN 711 MAX 3330 MIN 93 CFSM 1.86 IN 25.28 AC-FT 514900

13185000 BOISE RIVER NEAR TWIN SPRINGS, ID

LOCATION.--Lat 43°39'33", long 115°43'34", in NW¼NE¼ sec.27, T.4 N., R.6 E., Boise County, Hydrologic Unit 17050112, Boise National Forest, on right bank 0.7 mi (1.1 km) upstream from Birch Creek, 1.8 mi (2.9 km) upstream from maximum flow line of Arrowrock Reservoir, 3.2 mi (5.1 km) downstream from Twin Springs, 13 mi (20.9 km) upstream from Arrowrock Dam, and at mile 88.5 (142.4 km).

DRAINAGE AREA.--830 mi² (2,150 km²), approximately. Mean altitude, 6,350 ft (1,935 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1911 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,255.70 ft (992.337 m) National Geodetic Vertical Datum of 1929. March 1911 to Apr. 3, 1915, nonrecording gage, and Apr. 4, 1915, to Sept. 30, 1965, water-stage recorder at site 0.3 mi (0.5 km) downstream at datum 5.26 ft (1.603 m) lower.

REMARKS.--Records good.

AVERAGE DISCHARGE.--67 years, 1,205 ft³/s (34.13 m³/s), 19.71 in/yr (501 mm/yr), 873,000 acre-ft/yr (1,076 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,800 ft³/s (532 m³/s) Dec. 23, 1964, gage height, 12.20 ft (3.719 m), from floodmark, site and datum then in use; minimum, 105 ft³/s (2.97 m³/s) Nov. 28, 1976, gage height, 2.64 ft (0.805 m); minimum gage height, 1.48 ft (0.451 m) Dec. 6, 7, 1960 (site and datum then in use).

EXTEMES FOR CURRENT YEAR.--Peak discharge above base of 3,700 ft³/s (105 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 15	1315	4270	121	6.87	2.094	May 23	0515	4750	135	7.18	2.188
Apr. 1	0545	4500	127	7.06	2.152	June 10	0530	*6280	17C	7.99	2.435
May 4	0200	3920	111	6.70	2.042						
May 15	2045	4840	137	7.23	2.204						

Minimum discharge, 181 ft³/s (5.13 m³/s) Nov. 19, gage height, 2.98 ft (0.908 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Dec. 21, 22)

3.0	187	6.0	2,870
3.5	364	7.0	4,440
4.0	651	8.0	6,300
5.0	1,590		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	340	285	442	434	423	579	4410	3370	3040	3600	853	424
2	316	284	574	331	423	588	3750	3510	3190	3290	811	410
3	304	320	1070	504	445	625	3030	3800	3310	3160	769	401
4	297	295	900	534	429	620	2620	3770	3570	3110	737	391
5	289	319	682	493	430	644	2330	3310	4300	2940	705	405
6	285	360	580	487	531	705	2090	2950	5070	2630	681	574
7	282	325	543	459	572	739	2060	2850	5710	2630	651	737
8	285	307	475	439	654	753	1940	2820	5710	2860	622	636
9	282	260	407	444	634	807	2000	2960	5790	2770	601	541
10	282	296	469	439	589	906	2160	3660	6020	2660	587	567
11	274	297	454	454	571	1030	2560	3940	4730	2740	567	643
12	274	298	495	459	539	1070	2600	3610	3890	2510	554	587
13	274	292	485	449	486	995	2520	3420	3760	2310	587	560
14	267	295	1110	449	501	903	2420	3800	4330	2220	666	528
15	267	330	3380	481	488	810	2470	4760	4450	2200	594	498
16	263	375	2380	515	442	756	2720	4420	3970	2220	622	482
17	260	324	1590	540	403	799	2550	3790	3560	2040	622	466
18	260	275	1260	559	442	985	2320	3430	3560	1820	574	466
19	260	205	1030	534	474	1300	2230	3160	3480	1680	547	476
20	256	224	770	521	461	1570	2300	3070	3430	1570	528	471
21	256	237	730	498	470	1770	2200	3480	3590	1470	504	466
22	256	308	835	493	501	1970	2060	4370	3620	1370	487	455
23	256	332	786	434	554	2350	1930	4680	3760	1290	504	445
24	256	349	754	360	616	2490	1880	4270	3920	1220	482	439
25	256	388	714	434	634	2230	2040	3620	3840	1180	460	429
26	253	805	666	509	635	2320	2490	3130	3250	1160	450	419
27	258	826	572	434	635	2670	2830	2840	2880	1100	445	410
28	256	606	509	404	591	3140	2930	2790	3000	1070	439	405
29	257	537	621	449	---	3520	3110	3060	3460	1040	429	401
30	286	508	628	401	---	4120	3310	3190	3570	985	424	401
31	306	---	578	409	---	4320	---	3060	---	913	434	---
TOTAL	8513	10862	26489	14350	14573	48084	75860	108890	119760	63758	17936	14533
MEAN	275	362	854	463	520	1551	2529	3513	3992	2057	579	484
MAX	340	826	3380	559	654	4320	4410	4760	6020	3600	853	737
MIN	253	205	407	331	403	579	1880	2790	2880	913	424	391
CFSM	.33	.44	1.03	.56	.63	1.87	3.05	4.23	4.81	2.48	.70	.58
IN.	.38	.49	1.19	.64	.65	2.16	3.40	4.88	5.37	2.86	.80	.65
AC-FT	16890	21540	52540	28460	28910	95370	150500	216000	237500	126500	35580	28830

CAL YR 1977 TOTAL 173676 MEAN 476 MAX 3380 MIN 205 CFSM .57 IN 7.78 AC-FT 344500
WTR YR 1978 TOTAL 523609 MEAN 1435 MAX 6020 MIN 205 CFSM 1.73 IN 23.47 AC-FT 1039000

13185000 BOISE RIVER NEAR TWIN SPRINGS, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.
PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: June 1977 to current year.
INSTRUMENTATION.--Temperature recorder since June 9, 1977.
REMARKS.--Miscellaneous chemical data published for water years 1973-74.
EXTREMES FOR PERIOD OF RECORD.--
WATER TEMPERATURES: Maximum, 25.5°C July 23, 1977.
EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 22.0°C Aug. 6; minimum, 0.0°C Feb. 16, 17.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT									
27...	1204	253	--	--	13.5	9.0	--	--	--
DEC									
15...	1320	4300	55	--	7.5	3.5	--	--	--
MAR									
13...	1530	1010	76	--	4.0	3.5	--	--	--
APR									
17...	1600	2400	71	--	9.5	5.5	--	--	--
MAY									
15...	1340	4790	39	--	9.5	6.5	--	--	--
JUN									
21...	1130	3470	49	8.1	15.0	9.0	16	1	5.3
AUG									
01...	1005	888	56	--	27.0	16.0	--	--	--
SEP									
11...	1700	665	72	8.7	18.0	12.0	31	0	11

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT									
27...	--	--	--	--	--	--	--	--	--
DEC									
15...	--	--	--	--	--	--	--	--	--
MAR									
13...	--	--	--	--	--	--	--	--	--
APR									
17...	--	--	--	--	--	--	--	--	--
MAY									
15...	--	--	--	--	--	--	--	--	--
JUN									
21...	.7	2.3	22	.3	1.3	18	0	15	2.4
AUG									
01...	--	--	--	--	--	--	--	--	--
SEP									
11...	.8	3.8	21	.3	.5	37	1	32	3.2

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT								
27...	--	--	--	--	--	--	--	--
DEC								
15...	--	--	--	--	--	--	--	--
MAR								
13...	--	--	--	--	--	--	--	--
APR								
17...	--	--	--	--	--	--	--	--
MAY								
15...	--	--	--	--	--	--	--	--
JUN								
21...	1.8	.2	9.1	32	.04	300	.06	.01
AUG								
01...	--	--	--	--	--	--	--	--
SEP								
11...	.6	.6	12	52	.07	93.4	.01	.01

13185000 BOISE RIVER NEAR TWIN SPRINGS, ID--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	11.5	8.0	6.5	5.0	1.5	.5	.5	.5	2.5	1.5	4.0	1.0
2	11.5	8.5	7.0	5.5	2.5	1.5	.5	.5	3.5	2.0	4.0	1.0
3	11.5	8.5	5.5	3.5	4.0	2.5	.5	.5	3.0	1.5	3.5	2.5
4	11.0	8.0	6.5	4.5	4.0	3.0	.5	.5	3.5	1.5	5.0	3.0
5	10.5	7.5	6.5	6.0	3.5	2.5	2.0	.5	3.5	2.5	5.5	4.5
6	11.0	9.0	6.5	5.0	2.5	2.0	2.5	1.5	4.5	3.0	6.5	4.0
7	11.5	10.0	6.0	4.5	3.5	2.5	2.5	1.5	4.0	3.5	5.5	4.0
8	11.0	8.0	4.5	3.0	2.5	1.0	2.5	1.5	4.5	3.0	6.0	4.5
9	10.5	7.5	3.5	2.0	2.0	.5	3.5	2.5	3.5	2.0	6.5	5.0
10	10.0	7.0	4.5	3.0	2.5	1.5	3.5	3.0	4.0	2.5	6.5	4.0
11	9.0	6.0	4.5	2.5	2.5	1.5	4.0	3.0	3.5	3.0	5.5	3.5
12	9.5	6.0	5.5	4.0	3.5	2.5	4.5	3.5	4.0	2.5	5.5	4.5
13	10.0	7.0	5.0	4.0	3.5	2.5	3.5	2.5	3.0	1.5	4.5	3.0
14	11.0	8.0	5.0	3.5	4.0	3.0	4.5	3.0	4.0	2.5	4.5	2.5
15	11.0	8.0	6.0	4.5	3.5	3.5	4.5	3.5	3.0	2.0	5.0	2.0
16	10.5	8.0	6.0	4.0	3.5	2.5	4.0	3.0	2.0	.0	5.5	2.5
17	10.5	7.5	3.5	2.5	3.0	2.0	4.5	3.0	2.0	.0	6.5	3.5
18	10.0	7.0	2.5	1.0	3.0	2.5	4.5	3.5	3.0	.5	7.5	4.5
19	9.5	7.0	1.0	.5	2.5	1.0	4.5	3.5	4.0	1.5	6.5	4.5
20	10.5	7.5	.5	.5	.5	.5	5.0	4.0	4.0	1.5	7.0	4.0
21	10.0	8.0	.5	.5	.5	.5	5.0	4.0	4.0	1.5	6.5	4.0
22	9.5	7.0	.5	.5	.5	.5	4.5	3.0	4.0	[illegible]	7.0	4.5
23	8.5	6.5	2.5	.5	1.5	.5	3.0	.5	4.5	2.5	6.5	5.0
24	10.5	8.0	2.5	1.0	3.0	1.5	1.0	.5	4.0	3.0	6.5	4.0
25	11.0	8.5	3.5	2.5	3.5	2.5	2.0	.5	6.5	3.5	7.5	4.5
26	11.5	10.5	3.0	.5	3.0	2.5	3.5	1.5	5.5	4.0	7.5	4.5
27	10.5	8.5	2.5	1.0	2.5	1.0	2.0	.5	5.0	3.5	8.0	5.0
28	9.0	7.5	3.5	2.0	1.5	.5	2.5	.5	4.0	1.5	7.5	4.5
29	9.5	8.5	4.0	3.0	2.0	.5	3.0	2.0	---	---	7.5	4.5
30	8.5	7.0	3.5	1.5	2.5	1.0	2.0	.5	---	---	7.0	5.0
31	7.0	5.5	---	---	2.0	.5	2.0	1.0	---	---	7.0	4.5
MONTH	11.5	5.5	7.0	.5	4.0	.5	5.0	.5	6.5	.0	8.0	1.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6.5	5.0	8.5	6.0	10.5	7.0	13.0	9.5	19.0	15.5	19.0	15.0
2	6.0	4.5	9.5	5.5	10.0	7.5	11.5	9.5	19.5	15.0	18.0	15.0
3	6.0	4.0	9.0	6.0	10.5	7.5	11.5	10.0	20.0	15.5	19.5	15.5
4	6.0	4.5	7.5	4.5	11.5	8.0	10.5	9.5	20.5	16.0	20.0	16.5
5	6.0	4.5	7.5	4.0	11.5	7.5	11.5	8.5	21.5	17.0	19.0	17.0
6	7.0	5.0	8.5	5.0	11.5	7.5	13.0	10.0	22.0	18.0	17.0	15.5
7	6.5	4.5	8.5	6.0	11.0	7.0	12.5	9.5	21.0	17.0	15.5	14.0
8	8.0	5.0	9.0	6.0	11.0	7.0	12.5	10.5	21.0	16.5	15.5	12.0
9	8.5	5.0	9.5	6.5	11.0	7.5	14.0	9.5	20.0	16.0	14.5	11.5
10	9.0	5.5	9.5	7.0	10.5	7.0	15.0	11.5	21.0	17.0	14.0	12.5
11	8.5	6.0	8.5	7.0	10.5	6.5	14.5	11.5	20.5	16.5	13.0	11.0
12	7.0	4.0	8.5	5.0	10.5	7.5	14.0	11.0	19.5	16.5	11.5	10.0
13	7.5	4.5	9.5	6.5	12.0	7.0	14.5	12.0	18.0	15.5	12.5	9.5
14	8.0	5.0	10.0	7.0	11.5	8.0	16.0	12.0	17.0	13.0	13.5	11.0
15	7.5	6.0	10.0	6.0	11.0	7.5	16.0	13.5	17.5	13.0	14.0	11.0
16	7.5	5.0	7.5	5.0	10.0	6.5	16.0	13.5	16.5	14.5	14.0	11.0
17	6.0	4.0	8.5	5.5	11.0	7.0	15.5	12.5	15.0	11.5	12.5	10.0
18	7.0	3.5	8.5	6.5	11.0	8.0	16.5	13.0	16.0	11.5	10.0	8.5
19	8.0	5.0	8.5	6.5	11.5	7.5	16.5	13.0	16.5	12.0	9.5	7.0
20	6.0	5.5	11.0	7.5	11.0	8.0	16.5	13.5	17.5	13.0	10.0	6.5
21	6.5	4.5	11.5	7.5	11.5	8.5	17.0	13.5	16.5	13.5	10.5	7.0
22	6.5	4.5	11.5	7.5	12.0	8.5	17.5	13.5	16.0	13.5	12.0	8.0
23	8.5	5.0	9.5	6.0	12.0	8.5	17.5	14.0	16.0	12.0	13.0	9.5
24	8.0	6.5	7.0	5.0	12.0	8.5	18.0	14.5	16.5	12.5	14.0	10.5
25	8.0	7.0	7.5	5.0	10.5	7.5	19.0	15.0	17.0	13.0	14.5	10.5
26	7.5	7.0	9.0	5.0	10.5	7.5	19.0	16.0	16.5	13.5	14.5	11.0
27	7.5	6.0	10.5	7.5	12.5	9.0	20.0	17.0	17.0	13.0	14.5	12.0
28	8.5	6.5	11.0	8.0	13.0	10.0	19.5	17.0	17.0	13.0	14.5	11.5
29	8.5	5.5	11.0	8.0	13.0	10.0	21.0	17.0	18.0	13.5	14.0	10.5
30	9.5	6.0	9.5	6.0	13.0	10.0	20.5	16.5	17.5	14.5	13.0	10.0
31	---	---	9.5	6.0	---	---	20.0	16.0	19.0	15.0	---	---
MONTH	9.5	3.5	11.5	4.0	13.0	6.5	21.0	8.5	22.0	11.5	20.0	6.5
YEAR	22.0	.0										

13186000 SOUTH FORK BOISE RIVER NEAR FEATHERVILLE, ID

LOCATION.--Lat 43°29'40", long 115°18'20", in lot 6, NE¼ sec.19, T.2 N., R.10 E., Elmore County, Hydrologic Unit 17050113, on right bank 2.5 mi (4.0 km) upstream from Deer Creek, 8 mi (12.9 km) southwest of Featherville, and at mile 59.0 (94.9 km).

DRAINAGE AREA.--635 mi² (1,645 km²). Mean altitude, 6,840 ft (2,085 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1945 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,220 ft (1,286 m), from topographic map.

REMARKS.--Records good. No regulation. Diversions above station for irrigation of about 450 acres (180 hm²), 1966 determination.

AVERAGE DISCHARGE.--33 years, 798 ft³/s (22.60 m³/s), 17.07 in/yr (433.6 mm/yr), 578,200 acre-ft/yr (713 hm³).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,580 ft³/s (215 m³/s) May 24, 1956, gage height, 8.62 ft (2.63 m); minimum, 30 ft³/s (0.85 m³/s) Feb. 10, 1949, gage height, 0.60 ft (0.18 m), result of snowslide upstream.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 2,000 ft³/s (56.6 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 1	1315	2270	64.3	4.41	1.344	May 23	1145	3670	104	5.51	1.679
May 4	0300	2670	75.6	4.74	1.445	June 10	0300	*4450	126	*6.11	1.862
May 15	2300	3470	98.3	5.36	1.634						

Minimum discharge, 71 ft³/s (2.01 m³/s) Nov. 19, gage height, 1.07 ft (0.326 m), result of freezeup.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 20, 21; shifting-control method used Mar. 27 to July 5)

1.1	76	3.0	943
1.5	161	4.0	1,960
2.0	331	5.0	3,190
2.5	590	6.0	4,500

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	176	169	170	181	208	220	2170	2080	2350	2280	514	266
2	173	175	241	155	214	232	1840	2200	2390	2160	497	255
3	165	178	346	172	223	242	1430	2520	2400	2040	475	242
4	162	175	288	226	211	255	1250	2560	2530	2050	458	242
5	159	177	232	236	205	258	1120	2260	2880	1850	438	310
6	157	182	208	232	229	258	999	2000	3520	1650	423	502
7	156	175	221	214	232	270	1020	1900	3960	1630	403	519
8	159	159	197	208	223	266	983	1900	4120	1690	394	416
9	163	132	159	211	226	270	1070	2030	4230	1590	384	353
10	162	154	187	220	208	281	1190	2390	4300	1530	380	384
11	160	167	193	220	220	302	1430	2700	3550	1520	370	403
12	160	176	199	214	217	323	1470	2520	2970	1400	362	362
13	160	168	223	199	196	327	1400	2430	2880	1300	366	344
14	160	165	310	199	199	314	1350	2730	3260	1230	384	331
15	158	187	733	224	214	298	1400	3400	3310	1220	366	318
16	160	195	554	232	199	294	1550	3230	3010	1200	380	306
17	159	167	357	226	167	327	1410	2810	2710	1110	389	298
18	157	136	290	211	167	371	1270	2530	2670	1010	366	302
19	157	86	245	199	214	464	1230	2280	2590	943	357	314
20	156	107	175	220	220	572	1290	2220	2520	888	340	310
21	156	124	172	217	217	652	1220	2540	2600	850	327	298
22	155	150	205	211	214	726	1150	3210	2640	791	318	294
23	155	180	262	184	223	726	1080	3620	2700	755	323	285
24	155	196	255	122	242	726	1070	3390	2730	712	314	270
25	155	209	245	169	248	719	1170	2900	2540	665	298	274
26	155	304	211	220	252	835	1620	2480	2290	665	294	270
27	156	306	184	214	248	1020	1950	2180	2090	633	285	266
28	156	239	181	172	223	1210	1970	2150	2140	621	281	262
29	158	222	202	214	---	1430	2090	2400	2330	614	278	258
30	177	208	223	205	---	1700	2080	2550	2330	572	274	258
31	181	---	226	178	---	1860	---	2450	---	536	270	---
TOTAL	4978	5368	7894	6310	6059	17748	42272	78560	86560	37725	11308	9522
MEAN	161	179	255	204	216	573	1409	2534	2885	1217	365	317
MAX	181	306	733	236	252	1860	2170	3620	4300	2280	514	519
MIN	155	86	159	122	167	220	983	1900	2040	536	270	242
CFSM	.25	.28	.40	.32	.34	.90	2.22	3.99	4.54	1.92	.58	.50
IN.	.29	.31	.46	.37	.35	1.04	2.48	4.60	5.07	2.21	.66	.56
AC-FT	9870	10650	15660	12520	12020	35200	83850	155800	171700	74830	22430	18890

CAL YR 1977 TOTAL 89568 MEAN 245 MAX 748 MIN 86 CFSM .39 IN 5.25 AC-FT 177700
WTR YR 1978 TOTAL 314304 MEAN 861 MAX 4300 MIN 86 CFSM 1.36 IN 18.41 AC-FT 623400

13186000 SOUTH FORK BOISE RIVER NEAR FEATHERVILLE, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.
PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: May 1977 to current year.
INSTRUMENTATION.--Temperature recorder since May 5, 1977.
REMARKS.--Miscellaneous chemical data published for water years 1973-74. Interruptions in temperature record due to equipment malfunction.
EXTREMES FOR PERIOD OF RECORD.--
WATER TEMPERATURES: Maximum, 24.0°C July 23, Aug. 3, 19, 1977.
EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 22.5°C Aug. 6.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
NOV 08...	1530	155	128	--	4.5	4.0	--	--	--
DEC 13...	1315	232	89	--	-5.0	.5	--	--	--
APR 26...	1015	1600	87	--	10.5	6.5	--	--	--
MAY 16...	0945	3200	68	--	8.0	4.0	--	--	--
JUN 22...	1240	2660	69	7.6	--	8.0	25	0	8.7
JUL 31...	1005	528	87	--	23.5	15.5	--	--	--
SEP 13...	1145	331	89	8.0	15.5	9.0	43	0	15

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)
NOV 08...	--	--	--	--	--	--	--	--	--
DEC 13...	--	--	--	--	--	--	--	--	--
APR 26...	--	--	--	--	--	--	--	--	--
MAY 16...	--	--	--	--	--	--	--	--	--
JUN 22...	.8	2.3	16	.2	.4	31	0	25	2.2
JUL 31...	--	--	--	--	--	--	--	--	--
SEP 13...	1.3	4.6	19	.3	.5	55	0	45	3.5

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
NOV 08...	--	--	--	--	--	--	--	--
DEC 13...	--	--	--	--	--	--	--	--
APR 26...	--	--	--	--	--	--	--	--
MAY 16...	--	--	--	--	--	--	--	--
JUN 22...	.6	.1	9.8	41	.06	294	.09	.02
JUL 31...	--	--	--	--	--	--	--	--
SEP 13...	.7	.4	13	66	.09	59.0	.00	.01

13186000 SOUTH FORK BOISE RIVER NEAR FEATHERVILLE, ID--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	12.0	7.0	6.5	4.0	2.5	.5					---	---
2	12.5	7.0	7.5	4.5	3.0	2.5					---	---
3	12.5	7.5	6.0	2.5	3.5	2.5					---	---
4	11.5	6.5	6.5	4.0	3.5	2.5					---	---
5	12.0	6.0	6.5	5.5	2.5	1.0					---	---
6	11.5	8.5	7.5	4.5	2.0	.5					---	---
7	11.5	9.5	6.0	4.0	3.0	1.5					---	---
8	11.0	6.5	4.5	2.5	1.5	.5					---	---
9	11.0	6.5	4.5	1.5	1.5	.0					---	---
10	10.5	6.5	5.0	2.5	2.5	1.0					---	---
11	10.0	5.0	5.0	2.0	1.5	.5					---	---
12	11.0	5.5	5.5	2.5	2.5	.5					---	---
13	11.0	6.0	4.5	2.5	2.5	.5					---	---
14	12.0	7.5	4.5	2.5	2.0	1.0					---	---
15	12.0	7.0	6.0	4.5	2.0	1.5					---	---
16	11.5	7.0	5.0	3.5	1.5	1.0					---	---
17	11.0	6.5	3.0	2.0	---	---					7.0	.5
18	11.0	6.0	2.0	.0	---	---					7.5	3.5
19	11.0	6.5	2.0	.5	---	---					7.5	3.5
20	11.0	7.5	1.0	.0	---	---					7.0	3.0
21	11.0	7.5	.5	.0	---	---					6.5	3.5
22	10.0	6.0	.5	.0	---	---					---	---
23	9.5	5.5	1.5	.5	---	---					---	---
24	11.0	7.5	2.0	.0	---	---					---	---
25	11.5	7.5	3.0	1.5	---	---					---	---
26	11.0	9.0	3.0	1.0	---	---					7.5	5.0
27	10.0	6.5	2.5	.5	---	---					8.0	5.0
28	9.5	7.0	3.5	1.5	---	---					6.5	5.0
29	10.0	8.0	3.5	1.5	---	---					7.5	5.0
30	8.0	6.0	2.5	.5	---	---					7.0	6.0
31	6.5	4.5	---	---	---	---					---	---
MONTH	12.5	4.5	7.5	.0	3.5	.0					8.0	.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	8.0	5.0	10.5	5.5	12.0	9.0	20.5	14.0	19.5	12.5
2	---	---	9.5	5.5	9.5	6.5	12.5	9.5	20.5	13.5	19.0	13.0
3	---	---	9.0	5.5	10.0	6.5	12.0	9.5	21.0	13.5	19.5	14.0
4	5.0	3.5	7.0	4.0	11.0	7.0	10.5	9.0	21.0	14.0	20.5	15.0
5	6.0	3.0	7.0	3.5	11.5	7.0	11.0	8.0	22.0	15.5	19.0	15.5
6	7.0	4.0	8.0	4.0	11.0	7.0	12.5	9.0	22.5	16.5	15.5	14.5
7	5.0	4.0	9.5	5.0	11.0	6.5	13.5	9.5	22.0	15.0	16.0	14.0
8	9.0	4.5	10.0	5.0	11.0	6.5	12.5	10.0	22.0	14.5	16.5	11.5
9	9.5	4.5	9.0	5.5	11.0	6.5	14.5	9.5	21.5	14.5	15.5	10.0
10	10.0	5.0	10.0	6.5	10.0	6.5	15.5	11.0	22.0	15.5	14.0	11.5
11	8.5	5.5	8.5	6.5	10.5	5.5	15.0	11.5	21.5	14.5	13.0	10.0
12	7.5	3.0	8.5	4.5	10.5	6.5	15.5	10.5	20.0	14.5	12.0	9.0
13	7.5	4.0	10.0	6.0	11.5	8.0	15.5	11.5	17.5	14.5	13.0	8.5
14	9.0	4.5	10.0	7.0	11.0	7.0	17.0	12.0	18.5	12.0	13.0	9.5
15	7.5	5.5	9.5	5.5	10.5	6.5	18.0	13.5	19.0	12.0	15.0	9.0
16	6.0	4.0	7.5	4.0	10.0	5.5	17.5	13.5	16.5	13.5	14.5	9.5
17	6.5	3.5	8.5	4.5	11.0	6.0	17.0	12.0	15.5	10.0	12.5	8.5
18	8.5	3.0	7.5	6.0	10.5	7.5	17.5	12.5	17.5	10.0	10.0	8.0
19	8.5	4.5	8.5	5.5	11.5	6.5	17.5	12.0	18.0	10.5	10.0	6.5
20	7.0	5.5	10.5	6.5	11.0	7.5	17.5	13.0	18.5	11.5	10.5	5.5
21	7.5	4.0	11.0	6.5	11.0	8.0	18.0	12.5	18.0	11.5	12.0	6.0
22	7.0	3.5	10.0	7.0	11.5	7.5	19.0	12.5	16.5	12.5	13.0	7.0
23	9.5	4.0	9.0	5.5	12.0	8.0	19.0	13.0	16.0	10.5	14.0	8.0
24	9.0	5.5	7.0	5.0	11.5	8.0	19.5	13.0	18.0	11.0	15.0	9.0
25	7.5	7.0	6.5	4.0	10.5	7.5	20.5	14.0	18.0	11.0	15.5	9.5
26	8.0	6.0	8.5	4.0	11.0	7.5	20.5	14.5	18.0	12.0	15.5	10.0
27	7.5	5.0	10.5	6.5	12.5	8.0	21.0	16.0	18.0	11.5	15.5	10.5
28	9.5	5.0	11.5	7.0	13.5	9.0	22.0	16.5	18.5	11.5	15.0	10.5
29	8.5	5.0	10.0	7.0	13.0	9.5	22.0	16.0	19.0	12.0	14.5	9.5
30	8.5	5.0	8.5	5.0	13.0	9.5	21.5	14.5	16.5	13.0	14.0	8.5
31	---	---	9.5	4.5	---	---	21.5	14.5	19.0	13.5	---	---
MONTH	10.0	3.0	11.5	3.5	13.5	5.5	22.0	8.0	22.5	10.0	20.5	5.5
YEAR	22.5	.0										

13190000 ANDERSON RANCH RESERVOIR AT ANDERSON RANCH DAM, ID

LOCATION.--Lat 43°21'30", long 115°26'40", in SE¼ sec.1, T.1 S., R.8 E., Elmore County, Hydrologic Unit 17050113, Boise National Forest, at inlet structure of outlet works of Anderson Ranch Dam on South Fork Boise River, 1.5 mi (2.4 km) downstream from Camas Creek, 3 mi (4.8 km) northwest of Bennett, and at mile 43.5 (70.0 km).

DRAINAGE AREA.--980 mi^2 (2,540 km^2), approximately.

PERIOD OF RECORD.--December 1945 to current year.

REVISED RECORDS.--WRD Idaho 1969: 1968(m).

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Bureau of Reclamation). Prior to June 8, 1962, nonrecording gage or supplementary gage in powerhouse read once daily.

REMARKS.--Reservoir is formed by earth-fill dam. Storage began Dec. 15, 1945. Usable contents, 464,200 acre-ft (572 hm^3) between elevations 3,992 (1,216.8) and 4,196 ft (1,278.9 m), top of spillway gates. Elevation of spillway crest, 4,174 ft (1,272.2 m), and of top of dam, 4,206 ft (1,281.9 m). Dead storage below 3,992 ft (1,216.8 m) is 28,980 acre-ft (35.7 hm^3). Figures given herein represent usable contents. Water is used for irrigation in Boise valley and for power production.

COOPERATION.--Capacity table furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 472,800 acre-ft (583 hm^3) June 26, 1971, elevation, 4,197.82 ft (1,279.495 m); no usable contents prior to Jan. 27, 1946; minimum since full capacity was attained June 21, 1951, 63,830 acre-ft (78.7 hm^3) Jan. 6, 1962, elevation, 4,058.35 ft (1,236.985 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 464,600 acre-ft (573 hm^3) July 1, 9, 10, elevation, 4,196.08 ft (1,278.965 m); minimum, 98,300 acre-ft (121 hm^3) Oct. 1, elevation, 4,080.52 ft (1,243.742 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

4,080.0	97,400	4,140.0	246,100
4,090.0	116,100	4,160.0	314,400
4,100.0	137,500	4,180.0	392,400
4,120.0	187,700	4,200.0	483,400

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	98300	98900	101800	113200	116200	120500	158100	277800	397900	464600	441800	376000
2	98400	98900	102300	113200	116300	120700	163500	281200	400400	464200	440100	374200
3	98400	99000	103100	113200	116500	121000	167600	288100	403000	464300	438000	371000
4	98400	99100	103600	112900	116600	121300	171800	294000	405700	464400	435900	368600
5	98400	99100	103900	113000	116800	121600	174900	297900	409400	463700	433900	368400
6	98400	99200	104200	113200	116900	121900	177900	303900	413900	463700	431500	369700
7	98400	99300	104400	113300	117300	122200	181000	309900	420300	464200	429500	370400
8	98400	99300	104500	113500	117500	122500	183700	312000	426800	464400	422500	370800
9	98400	99300	104600	113500	117700	122900	186900	315000	433100	464600	425200	371400
10	98500	99300	104800	113700	117900	123300	190600	317800	439100	464600	423400	372000
11	98500	99300	105000	114000	118000	123800	195000	323200	443000	464100	421300	373000
12	98500	99300	105200	114200	118200	124300	199800	326300	444800	463800	418700	373000
13	98500	99300	105500	114500	118300	124900	203900	329200	446900	463800	417500	373500
14	98500	99300	106300	114700	118500	124600	207800	332400	450100	463400	415000	373500
15	98500	99400	108300	115000	118600	124300	211700	340900	452600	463300	412200	374100
16	98500	99500	109600	115200	118700	123900	216200	346600	453000	462900	411200	374100
17	98500	99500	110400	115500	118700	123600	220200	351000	453700	462400	408800	374100
18	98600	99600	111000	115600	118800	124300	223700	353900	454000	461500	407100	375200
19	98600	99500	111300	115700	118800	125200	227400	355100	454800	460100	405100	375500
20	98600	99400	111300	115800	118900	125800	231000	357200	454800	459200	403100	375700
21	98600	99300	111400	116000	119000	126700	234100	360600	455900	458300	401400	376000
22	98600	99400	111500	116100	119200	127800	237100	364800	457000	457200	398900	376300
23	98600	99500	111900	116100	119400	128400	239600	370700	458200	455400	396400	376400
24	98600	99700	112200	116100	119500	129600	242500	375800	459700	454300	395300	376500
25	98600	99900	112400	116000	119700	131400	247200	379700	460300	452200	392600	376800
26	98600	100500	112600	116100	120000	133800	252000	382200	460900	456600	390100	377500
27	98700	100900	112600	116200	120200	135800	256900	384300	461800	450100	387400	377500
28	98700	101100	112700	116200	120400	138600	262400	386300	462400	448400	385300	377600
29	98700	101400	112900	116300	---	142300	268300	388600	463300	447700	383400	377700
30	98800	101600	113000	116400	---	146900	273700	392300	464200	445100	380500	377800
31	98800	---	113200	116200	---	151700	---	395300	---	443800	378300	---
MAX	98800	101600	113200	116400	120400	151700	273700	395300	464200	464600	441800	377800
MIN	98300	98900	101800	112900	116200	120500	158100	277800	397900	443800	378300	368400
(†)	80.79	82.35	88.50	90.04	92.12	106.05	148.43	180.67	196.01	191.65	176.58	176.46
(‡)	+500	+2800	+11600	+3000	+4200	+31300	+122000	+121600	+68900	-20400	-65500	-500

CAL YR 1977............ ‡ -271800
WTR YR 1978............ ‡ +279500

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

13190500 SOUTH FORK BOISE RIVER AT ANDERSON RANCH DAM, ID

LOCATION.--Lat 43°20'30", long 115°28'40", in NW¼ sec.14, T.1 S., R.8 E., Elmore County, Hydrologic Unit 17050113, Boise National Forest, on right bank 600 ft (180 m) upstream from Dixie Creek, 1.8 mi (2.9 km) downstream from Anderson Ranch 2.2 mi (3.5 km) northwest of Bennett, and at mile 41.5 (66.8 km).

DRAINAGE AREA.--982 mi² (2,543 km²).

PERIOD OF RECORD.--April 1943 to current year (includes flow of Dixie Creek prior to October 1946).

GAGE.--Water-stage recorder. Datum of gage is 3,830.0 ft (1,167.38 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for February and March, which are fair. Flow regulated by Anderson Ranch Reservoir 1.8 mi (2.9 km) upstream (see sta 13190000) beginning Dec. 15, 1945. Flow of Little Camas Creek is stored in Little Camas Reservoir, capacity, 22,300 acre-ft (27.5 hm³), no spill most years and diverted out of basin through Little Camas Canal for irrigation of about 5,000 acres (240 hm²), 1966 determination.

AVERAGE DISCHARGE.--35 years, 1,010 ft³/s (28.60 m³/s), 731,700 acre-ft/yr (902 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,850 ft³/s (279 m³/s) May 25, 1956, gage height, 10.56 ft (3.219 m); minimum, 0.1 ft³/s (0.003 m³/s) Nov. 13, 1959; minimum gage height, 0.99 ft (0.302 m) Feb. 16, 1950.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,070 ft³/s (86.9 m³/s) July 1, gage height, 6.28 ft (1.914 m); minimum, 136 ft³/s (3.85 m³/s) Apr. 30, gage height, 2.35 ft (0.716 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

2.4	158	3.5	594
2.7	253	4.0	899
3.0	366	5.0	1,770
		6.1	2,960

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	203	194	203	250	246	246	213	229	1560	2620	1500	1580
2	203	206	206	250	246	246	239	236	1580	2390	1520	1580
3	206	210	206	250	246	246	239	229	1570	2390	1520	1590
4	206	210	203	487	246	246	239	229	1570	2630	1520	1550
5	210	206	210	250	246	246	236	232	1570	2340	1530	309
6	206	210	210	253	246	246	240	229	1570	1770	1530	294
7	213	210	203	253	246	246	236	232	1560	1630	1530	213
8	210	210	206	246	246	246	243	1120	1560	1780	1530	210
9	210	206	203	250	246	246	236	1230	1910	1800	1540	210
10	213	206	206	253	246	246	236	1210	2300	1810	1530	206
11	213	210	206	253	246	246	243	1230	2310	1790	1540	210
12	210	206	206	250	246	185	236	1210	2320	1580	1550	213
13	210	206	206	250	246	185	239	1210	2320	1490	1540	191
14	213	210	206	250	246	760	239	1190	2330	1480	1560	210
15	213	206	210	253	246	730	239	1210	2610	1480	1550	206
16	210	206	210	253	246	740	243	1190	2880	1460	1560	210
17	210	210	206	253	246	730	246	1210	2880	1490	1360	206
18	210	206	203	253	246	200	239	1630	2900	1480	1360	206
19	210	206	206	250	246	200	246	1650	2900	1490	1360	210
20	216	206	250	253	246	640	250	1640	2760	1480	1360	210
21	213	206	253	250	246	640	253	1640	2440	1490	1360	210
22	213	206	253	246	246	641	246	1630	2500	1490	1520	203
23	210	206	253	257	246	641	243	1370	2410	1490	1550	210
24	213	206	257	246	246	641	239	1570	2420	1490	1560	210
25	213	206	257	279	246	197	243	1610	2430	1490	1550	206
26	213	210	253	250	246	194	243	1600	2260	1500	1560	206
27	210	203	257	253	246	636	243	1600	1990	1500	1570	206
28	213	203	250	246	246	636	239	1600	2000	1490	1570	206
29	213	206	250	253	---	641	236	1600	2000	1500	1570	206
30	213	185	257	246	---	652	236	1590	2060	1500	1570	206
31	197	---	213	425	---	636	---	1310	---	1390	1540	---
TOTAL	6516	6177	6918	8211	6888	13231	7204	35666	65470	52730	46910	11883
MEAN	210	206	223	265	246	427	240	1151	2182	1701	1513	396
MAX	216	210	257	487	246	760	253	1650	2900	2630	1570	1590
MIN	197	185	203	246	246	185	213	229	1560	1390	1360	191
AC-FT	12920	12250	13720	16290	13660	26240	14290	70740	129900	104600	93050	23570

CAL YR 1977 TOTAL 248761 MEAN 682 MAX 1650 MIN 178 AC-FT 493400
WTR YR 1978 TOTAL 267804 MEAN 734 MAX 2900 MIN 185 AC-FT 531200

13190500 SOUTH FORK BOISE RIVER AT ANDERSON RANCH DAM, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977 to current year.
PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: May 1977 to current year.
INSTRUMENTATION.--Temperature recorder since May 6, 1977.
EXTREMES FOR PERIOD OF RECORD.--
WATER TEMPERATURES: Maximum, 17.0°C Aug. 31, Sept. 4-7, 9-13, 15, 1977.
EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 15.5°C Oct. 1, 2, 4, 5; minimum, 2.0°C Jan. 24, 25, 28, 31, Feb. 21, 23, 28.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
NOV					
08...	1145	208	116	3.0	9.5
DEC					
13...	1130	202	94	3.5	5.5
FEB					
02...	1320	252	110	2.5	3.0
APR					
27...	1100	240	106	8.0	5.5
MAY					
16...	1430	1190	99	8.5	6.0
JUN					
22...	1415	2390	83	22.5	10.0
JUL					
31...	1400	1500	101	23.0	9.0

13190500 SOUTH FORK BOISE RIVER AT ANDERSON RANCH DAM, ID--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	15.5	11.5	12.0	10.5	7.0	6.0	4.0	3.0	3.0	2.5	4.5	2.0
2	15.5	12.5	11.5	10.0	6.5	6.5	3.5	3.0	3.5	2.5	4.0	2.0
3	15.0	12.5	12.0	10.0	7.0	6.5	4.0	3.0	4.0	2.5	3.0	2.5
4	15.5	12.0	12.0	10.5	6.5	5.5	3.5	3.0	4.0	2.5	3.5	2.5
5	15.5	11.5	11.0	9.5	6.5	5.5	3.5	3.0	3.0	2.5	4.0	3.0
6	14.0	12.0	11.0	9.5	6.0	5.5	4.0	3.0	4.5	3.0	5.0	3.0
7	14.0	11.5	10.5	9.0	6.0	5.5	4.0	3.0	3.5	2.5	4.5	2.5
8	15.0	11.5	10.5	9.0	6.0	5.0	3.5	3.0	4.5	3.0	4.0	3.0
9	14.5	12.0	11.0	9.0	6.0	5.0	3.5	3.0	3.5	2.5	4.5	3.0
10	15.0	11.5	11.0	9.5	6.0	5.0	3.5	3.0	3.5	2.5	5.0	3.0
11	15.0	11.5	10.5	9.0	5.5	5.0	4.0	3.0	3.5	2.5	5.0	3.0
12	15.0	11.0	10.5	9.0	6.5	5.5	4.0	3.0	4.5	2.5	5.0	3.0
13	14.5	11.5	10.0	8.5	5.5	5.5	3.5	3.0	3.5	2.5	4.5	3.0
14	15.0	11.5	9.5	8.5	6.0	5.5	4.0	3.0	3.5	2.5	4.0	3.0
15	15.0	11.0	9.5	8.5	6.0	5.0	3.5	3.0	3.5	2.5	4.0	3.0
16	14.5	11.0	9.5	8.0	5.5	5.0	3.0	2.5	4.5	2.5	4.0	3.0
17	14.5	11.0	9.0	8.0	5.0	4.5	3.5	3.0	4.0	2.5	4.5	3.0
18	14.5	11.0	8.5	7.5	5.5	4.5	3.5	3.0	3.5	2.5	6.5	3.0
19	14.0	11.5	8.5	7.5	5.0	4.0	3.5	3.0	4.5	2.5	6.0	3.0
20	14.0	11.5	8.5	7.0	4.5	4.0	4.0	3.0	4.5	2.5	6.0	3.0
21	13.5	11.5	7.0	6.5	5.0	4.0	4.0	3.0	4.0	2.0	5.5	3.0
22	14.0	11.0	8.0	6.0	5.0	4.0	4.0	3.0	4.0	2.5	5.0	3.5
23	13.5	11.0	8.5	7.0	5.0	3.5	3.5	2.5	4.0	2.0	5.0	3.5
24	13.5	12.0	7.5	7.0	5.0	4.5	3.5	2.0	3.5	2.5	5.5	3.5
25	14.0	11.5	8.5	7.5	5.0	4.0	3.5	2.0	4.5	2.5	7.0	3.5
26	13.0	11.5	7.5	6.5	5.0	4.0	3.5	2.5	4.0	2.5	7.0	3.5
27	13.5	11.0	7.0	6.5	4.5	4.0	4.0	2.5	4.0	2.5	7.0	4.0
28	13.0	11.0	7.5	6.5	5.0	4.0	3.0	2.0	4.5	2.0	7.0	4.0
29	12.0	11.0	7.5	6.5	4.5	4.0	3.5	2.5	---	---	7.5	4.0
30	11.5	10.5	7.0	6.0	4.5	4.0	3.5	2.5	---	---	6.0	4.5
31	12.0	11.0	---	---	4.5	3.5	2.5	2.0	---	---	5.5	4.5
MONTH	15.5	10.5	12.0	6.0	7.0	3.5	4.0	2.0	4.5	2.0	7.5	2.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	5.5	4.0	8.0	5.0	6.5	5.5	12.0	10.0	9.0	8.5	10.0	9.5
2	5.5	4.0	8.0	4.5	6.5	6.0	11.5	9.5	9.0	8.5	10.0	9.5
3	6.0	4.0	8.0	4.5	7.0	6.0	11.0	9.5	9.0	8.5	10.5	9.5
4	5.0	4.0	6.5	4.5	7.0	6.0	10.5	9.5	9.5	8.5	10.5	9.5
5	5.5	4.0	7.5	4.5	7.0	6.0	11.0	9.5	9.5	8.5	10.0	9.5
6	6.0	4.0	8.5	5.0	7.0	6.0	10.5	7.5	9.5	8.5	10.5	9.5
7	5.0	4.0	8.0	5.0	7.0	6.0	9.5	7.5	9.5	8.5	10.0	9.0
8	6.0	4.0	5.5	5.0	7.0	6.5	9.5	8.5	9.0	6.5	11.5	8.5
9	7.0	4.0	6.5	5.0	9.5	6.5	10.0	9.0	9.5	8.5	11.5	8.5
10	7.0	4.0	6.0	5.0	9.0	8.5	10.0	9.0	9.5	8.5	10.0	9.0
11	6.5	4.0	6.0	5.0	9.0	8.0	9.5	8.5	9.5	8.5	11.0	8.5
12	6.5	3.5	6.0	5.0	10.0	9.5	9.0	7.5	9.5	8.5	10.5	9.0
13	7.0	4.0	6.5	5.0	10.0	9.5	8.5	7.5	9.5	8.5	11.5	8.5
14	7.5	4.5	6.0	5.0	10.0	8.5	8.5	7.5	9.5	8.5	11.0	9.0
15	6.5	5.0	6.0	5.0	10.5	8.5	8.5	8.0	9.5	9.0	11.5	9.0
16	5.0	4.0	6.5	5.0	10.0	9.0	8.5	7.5	9.5	8.5	11.5	9.0
17	6.5	4.0	6.5	5.0	10.5	9.0	8.5	7.5	9.5	9.0	10.5	8.5
18	7.5	4.0	6.0	5.0	11.0	10.5	8.5	7.5	9.5	9.0	10.0	8.0
19	7.5	5.0	6.0	5.5	11.0	10.0	8.5	7.5	9.5	9.0	10.5	8.5
20	6.0	4.5	6.0	5.5	11.5	10.0	9.0	7.5	9.5	9.0	11.0	8.5
21	6.0	4.0	7.0	5.5	10.5	10.0	9.0	8.0	10.0	9.0	11.0	8.5
22	6.5	4.0	6.5	5.5	11.0	10.0	9.0	8.0	9.5	9.0	11.5	8.5
23	7.5	4.5	6.5	5.5	11.0	10.0	8.5	8.0	9.5	9.5	11.5	9.0
24	7.0	5.0	6.0	5.5	11.0	9.0	9.0	8.0	10.0	9.0	11.5	9.0
25	6.0	5.0	6.5	5.5	9.5	8.5	9.0	8.0	10.0	9.5	11.0	9.0
26	7.0	5.0	6.5	5.5	10.5	9.0	8.5	8.0	10.0	9.5	11.5	9.0
27	6.0	4.5	6.5	5.5	10.0	9.0	9.0	8.5	10.0	9.5	11.5	9.0
28	7.0	4.5	7.0	6.0	10.0	9.5	9.0	8.0	10.0	9.5	11.5	9.0
29	8.0	4.5	6.5	6.0	10.0	9.5	9.0	8.0	10.0	9.5	11.5	9.0
30	8.0	5.0	6.5	6.0	10.0	9.0	9.0	8.0	10.0	9.5	11.0	9.0
31	---	---	7.0	5.5	---	---	9.0	8.5	10.0	9.5	---	---
MONTH	8.0	3.5	8.5	4.5	11.5	5.5	12.0	7.5	10.0	8.5	11.5	8.0
YEAR	15.5	2.0										

13192200 SOUTH FORK BOISE RIVER AT NEAL BRIDGE, NEAR ARROWROCK DAM, ID

LOCATION.--Lat 43°33'00", long 115°43'14", in NW¼NE¼SE¼ sec.34, T.3 N., R.6 E., Elmore County, Boise National Forest, Hydrologic Unit 17050113, on left bank 200 ft (61 m) upstream from Neal Bridge, 0.5 mi (0.8 km) above high-water line of Arrowrock Dam, 32.3 mi (52 km) downstream from Anderson Ranch Dam, and 10 mi (16 km) southeast of Arrowrock Dam.

PERIOD OF RECORD.--Water years 1977 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: May 1977 to current year.

INSTRUMENTATION.--Temperature recorder since May 11, 1977.

EXTREMES FOR PERIOD OF RECORD.--
WATER TEMPERATURES: Maximum, 20.0°C Sept. 5-7, 1977.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 15.0°C Sept. 27; minimum, 0.0°C Dec. 20, 21, Jan. 1-3.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	12.5	9.5	6.0	7.0	4.0	3.5	1.5	.0	3.0	2.5	3.5	2.5
2	12.0	10.0	8.5	7.5	5.5	3.5	.0	.0	3.5	3.0	4.0	3.0
3	12.0	11.0	7.5	6.0	6.0	5.5	1.0	.0	4.0	3.5	4.0	3.5
4	11.5	10.5	8.0	6.5	6.0	5.5	3.5	1.0	4.5	3.5	4.5	3.5
5	11.5	10.5	9.0	8.0	5.5	3.5	3.5	3.0	4.5	4.5	5.5	4.5
6	12.5	11.0	8.5	6.5	4.0	3.5	4.0	3.5	5.0	3.5	6.0	5.0
7	12.0	10.5	7.5	6.0	4.5	3.5	4.0	2.5	5.0	4.0	6.0	5.0
8	11.0	9.5	6.5	4.0	3.5	2.0	3.0	3.0	4.5	3.5	6.0	5.0
9	11.0	9.5	5.5	4.5	2.5	2.0	3.5	3.0	4.5	3.0	6.5	5.5
10	10.5	9.0	6.5	5.0	3.5	2.5	4.0	4.0	3.5	3.0	6.5	5.0
11	10.0	9.0	7.0	6.0	3.5	3.5	4.5	4.0	3.5	3.0	6.5	4.5
12	10.5	9.0	7.0	6.5	4.5	3.5	4.5	4.0	3.5	2.5	6.5	5.0
13	11.5	10.0	7.5	7.0	5.0	4.5	4.0	3.0	3.5	3.0	5.0	4.0
14	12.0	11.0	7.0	6.0	5.0	4.5	4.5	3.5	4.0	3.5	5.0	3.0
15	12.0	10.5	8.0	6.5	5.0	4.0	4.5	4.0	4.0	2.5	5.5	2.5
16	12.0	11.0	8.0	6.0	4.0	2.5	4.0	3.5	2.5	1.5	6.0	3.0
17	11.0	10.0	6.0	4.5	3.0	2.5	4.5	3.5	2.5	1.5	6.5	4.5
18	11.0	10.0	4.5	3.0	2.5	2.0	4.5	4.0	3.5	2.0	7.5	5.0
19	11.5	10.0	3.0	2.5	2.5	1.0	4.0	3.5	4.0	3.0	8.0	6.5
20	11.5	10.5	2.5	2.0	1.0	.0	4.5	4.0	4.5	3.5	8.0	5.5
21	11.5	10.5	2.0	1.0	.5	.0	5.0	4.5	4.5	3.0	7.0	5.5
22	10.5	9.0	2.5	.5	2.0	.5	5.0	3.5	4.5	3.5	7.0	5.5
23	10.5	9.5	5.0	2.5	3.0	1.5	3.5	1.0	4.0	3.0	6.5	5.5
24	11.0	10.0	5.5	5.0	4.5	3.0	1.5	1.0	4.5	4.0	6.5	5.0
25	12.5	11.0	6.0	5.0	4.5	4.0	2.5	1.5	5.5	4.5	9.0	5.5
26	12.5	11.0	6.5	5.5	4.0	3.0	3.5	2.5	5.5	5.0	9.5	7.0
27	11.0	9.5	5.5	4.5	3.5	2.0	3.5	1.5	5.0	4.0	9.5	7.0
28	10.0	9.5	5.5	4.5	3.5	2.5	3.0	2.0	4.0	2.5	9.0	6.5
29	10.5	10.0	6.0	5.5	3.5	3.0	3.5	3.0	---	---	9.0	7.0
30	10.0	8.0	5.5	3.5	3.5	3.0	3.0	2.0	---	---	9.0	8.0
31	8.0	7.0	---	---	3.5	1.5	2.5	2.0	---	---	8.0	6.5
MONTH	12.5	7.0	9.0	.5	6.0	.0	5.0	.0	5.5	1.5	9.5	2.5

13192200 SOUTH FORK BOISE RIVER AT NEAL BRIDGE, NEAR ARROWROCK DAM, ID--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.0	6.5	11.5	9.5	11.5	5.5	14.0	10.0	14.0	8.5	14.5	10.0
2	7.0	5.5	11.5	8.5	9.5	6.5	14.5	11.5	14.5	8.5	13.5	10.0
3	7.0	5.5	11.5	9.5	10.0	7.0	13.5	10.0	14.5	9.5	14.0	10.5
4	7.0	6.0	10.0	6.5	11.5	6.5	12.0	10.0	14.5	9.5	14.5	11.0
5	7.0	4.5	9.0	5.5	12.5	6.5	14.5	10.5	14.5	10.0	13.5	11.5
6	7.0	6.5	10.5	7.0	12.0	7.0	14.0	9.5	14.5	10.0	13.5	13.0
7	7.0	5.5	10.5	8.5	12.5	7.0	13.0	8.5	14.5	9.5	13.5	12.0
8	8.5	5.5	10.5	7.0	12.5	7.0	14.0	9.5	14.5	9.0	13.0	11.0
9	9.5	7.0	10.5	5.5	12.5	7.5	14.5	9.0	14.0	9.5	14.0	12.5
10	10.5	8.0	10.5	6.5	11.0	9.0	14.5	10.0	14.5	10.0	13.5	12.0
11	10.5	8.5	10.0	6.5	12.5	8.0	14.0	9.5	14.5	9.5	12.5	11.0
12	9.0	5.5	10.5	5.0	13.0	9.0	14.0	9.0	13.5	9.5	12.0	11.0
13	8.0	6.0	11.0	6.0	13.5	10.0	13.0	8.5	12.5	10.0	12.5	10.5
14	9.5	7.5	10.5	6.5	13.5	9.5	14.0	8.5	13.5	9.0	13.5	12.0
15	10.0	8.5	10.0	6.5	13.0	8.5	13.5	9.0	14.0	9.0	13.5	11.5
16	9.0	6.0	9.5	5.5	13.0	8.5	13.5	9.0	13.0	10.0	13.5	12.0
17	7.0	4.5	10.5	5.5	13.5	8.5	14.0	8.5	13.0	8.5	12.5	9.5
18	8.5	5.5	9.5	6.0	11.5	10.0	13.5	8.0	13.5	9.0	9.5	8.0
19	9.5	7.5	10.0	6.5	14.0	10.5	14.0	8.0	13.5	9.5	9.5	7.5
20	9.5	6.5	11.0	6.0	14.0	10.0	13.5	8.5	14.0	9.5	10.5	8.5
21	7.0	5.0	11.5	6.0	13.5	10.5	14.0	8.5	13.5	9.5	11.5	9.5
22	7.0	5.5	11.0	6.5	14.5	10.0	14.0	8.5	13.0	10.0	12.0	10.5
23	9.5	7.0	9.5	6.0	14.5	10.0	13.5	8.5	13.0	9.5	13.0	11.5
24	9.5	8.5	8.0	5.5	14.0	10.5	14.0	9.0	14.0	9.5	14.0	12.0
25	9.5	9.5	9.0	5.5	12.0	9.5	14.5	9.0	14.0	9.5	14.0	12.5
26	9.5	8.5	10.0	5.5	13.0	8.5	14.5	9.0	13.5	9.5	14.5	13.0
27	10.0	8.0	11.0	6.0	14.0	9.0	14.0	9.5	14.0	9.5	15.0	13.5
28	9.5	7.0	11.5	6.0	13.5	9.5	14.0	9.5	14.0	9.5	14.5	13.0
29	10.5	8.0	10.5	6.5	14.5	10.0	14.5	9.5	14.0	9.5	13.5	12.0
30	11.5	9.0	10.5	5.5	13.5	10.0	14.0	8.5	13.5	10.0	13.0	12.0
31	---	---	11.5	6.0	---	---	14.5	9.0	14.0	10.5	---	---
MONTH	11.5	4.5	11.5	5.0	14.5	5.5	14.5	8.0	14.5	8.5	15.0	7.5
YEAR	15.0	.0										

13194000 ARROWROCK RESERVOIR AT ARROWROCK DAM, ID

LOCATION.--Lat 43°35'40", long 115°55'19", in E½ sec.13, T.3 N., R.4 E., Elmore County, Hydrologic Unit 17050112, Boise National Forest, at Arrowrock Dam on Boise River, 14 mi (23 km) east of Boise, and at mile 75.4 (121.3 km).

DRAINAGE AREA.--2,210 mi² (5,724 km²), approximately.

PERIOD OF RECORD.--October 1917 to current year. Published as "at Arrowrock" October 1917 to September 1962.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation).

REMARKS.--Reservoir is formed by gravity-section concrete-arch dam completed in 1915 and raised 5 ft (1.5 m) in 1937; storage began in 1915. Controlled capacity, 286,600 acre-ft (353 hm³) between elevations 2,974 ft (906.5 m) and 3,216 ft (980.2 m) at highest position of movable crest of spillway and 9.5 ft (3.00 m) above sluice gate sill. Silt deposition at dam has raised the lower storage level and decreased the capacity of the reservoir. Prior to Oct. 1, 1952, contents in publications of the Geological Survey applied from original capacity table and no silt corrections were made. Beginning Oct. 1, 1952, contents applied from revised table, which is the original table reduced by amounts varying from 347 acre-ft (0.428 hm³) at elevation 2,974 ft (906.5 m) to 5,000 acre-ft (6.16 hm³) at elevation 3,085 ft (940.3 m) and above. Water is used for irrigation in Boise Valley.

COOPERATION.--Gage readings and capacity table furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 301,200 acre-ft (371 hm³) May 29, 1948, elevation, 3,219.1 ft (981.18 m); no usable contents during period in each of several years when sluice gates were open and natural flow was passing through reservoir.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 280,800 acre-ft (346 hm³) Apr. 3, elevation, 3,214.11 ft (979.661 m); minimum observed, 1,250 acre-ft (1.54 hm³) Oct. 1, elevation, 3,001.00 ft (914.705 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

3001.0	1,250	3060.0	16,770	3150.0	126,000
3010.0	2,210	3080.0	30,000	3180.0	189,500
3020.0	3,800	3100.0	49,000	3215.0	283,500
3040.0	8,270	3120.0	75,000		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1250	37500	76700	150600	156300	168400	278800	176200	109400	183800	153300	20800
2	2410	38700	78300	152000	155800	168600	279800	172400	108600	187700	149200	21300
3	3240	39800	80400	153600	155100	168900	280800	169800	108300	190700	144600	21100
4	5220	40800	82400	156000	154900	170000	279600	167700	108200	193100	140100	20900
5	6650	42600	84700	158200	154600	171100	279100	165400	109000	196500	135300	20500
6	8140	43500	87000	158700	154400	172200	278300	161600	111300	198700	130900	20100
7	9340	44400	89700	158900	154800	173300	277700	157400	114700	198800	126600	21100
8	10400	45400	91300	159200	155500	174500	277600	152800	118600	198800	122600	21800
9	11500	46500	92600	159500	156400	175900	277400	149500	122500	199700	117900	22700
10	13400	47500	93300	159200	157200	177600	277300	147100	127200	200100	113700	23800
11	15000	48600	95900	158900	157800	179600	277600	145100	131800	201500	109300	24500
12	16100	49700	97500	158500	158300	181600	274400	141900	134600	202600	106200	26500
13	17400	50900	99100	158200	158700	183600	271000	138100	133800	202800	100100	28300
14	18600	52100	100700	157900	158900	185200	267500	134800	134400	202400	96100	29200
15	20000	53200	105600	157500	159000	187200	263200	132000	137300	201000	91900	32000
16	20800	54500	114200	157800	159000	189300	259000	131300	140500	199600	88100	32900
17	22100	55600	116800	158400	159500	191200	255400	129300	144200	198400	84400	34500
18	22900	57000	119600	159100	160000	193400	251200	126400	146900	195900	80700	36100
19	24100	58100	122300	159600	160600	195600	246500	123900	150200	193800	77000	37400
20	25400	59200	124700	159900	161100	197800	240900	121100	152800	191600	70700	39400
21	26700	60200	130000	160000	161600	202800	235700	118700	155000	189200	65400	41000
22	28000	61200	132000	160000	162100	209000	229600	117400	159100	186800	61600	42700
23	29400	62000	137700	159900	162800	215000	223300	117900	162300	183500	58400	44000
24	30800	63400	138900	159500	163600	222300	216200	120700	165700	180100	53700	45800
25	32200	64900	140000	158900	164600	228400	208900	122400	168900	176600	49800	47200
26	32900	66800	141200	158700	165700	234400	202000	122800	171900	173300	43700	48500
27	33300	68700	142500	158500	166800	240000	195600	119900	174000	170000	38600	49800
28	33700	70800	144000	158000	167600	248700	189900	116800	175800	166600	33800	51700
29	34600	72600	145400	157400	---	257500	184600	113800	177900	163400	32400	53300
30	35600	74500	147200	157100	---	266900	180300	111500	180600	160200	28100	54700
31	36500	---	149100	156500	---	277900	---	110700	---	157100	24000	---
MAX	36500	74500	149100	160000	167600	277900	280800	176200	180600	202800	153300	54700
MIN	1250	37500	76700	150600	154400	168400	180300	110700	108200	157100	24000	20100
(†)	87.80	119.67	161.46	165.00	170.29	213.12	176.00	141.80	176.11	165.27	71.80	104.79
(‡)	+35760	+38000	+74600	+7400	+11100	+110300	-97600	-69600	+69900	-23500	-133100	+30700

CAL YR 1976............. ‡ +1400
WTR YR 1977............. ‡ +53960

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

13200000 MORES CREEK ABOVE ROBIE CREEK, NEAR ARROWROCK DAM, ID

LOCATION.--Lat 43°38'53", long 115°59'20", in SE¼SW¼ sec.28, T.4 N., R.4 E., Boise County, Hydrologic Unit 17050112, on left bank at State roadside park, 1.7 mi (2.7 km) upstream from Robie Creek, 5.0 mi (8.0 km) northwest of Arrowrock Dam, and at mile 5.8 (9.3 km).

DRAINAGE AREA.--399 mi² (1,033 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1950 to current year. Prior to October 1958, published as Moore Creek above Robie Creek, near Arrowrock, and October 1958 to September 1962, published as "near Arrowrock."

GAGE.--Water-stage recorder. Altitude of gage is 3,120 ft (951 m), from topographic map.

REMARKS.--Records good. Diversions above station and from Robie Creek for irrigation of about 900 acres (360 hm²).

AVERAGE DISCHARGE.--28 years, 300 ft³/s (8.496 m³/s), 10.21 in/yr (259 mm/yr), 217,400 acre-ft/yr (268 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,440 ft³/s (154 m³/s) Dec. 23, 1955, gage height, 9.55 ft (2.911 m); minimum, 7.4 ft³/s (0.210 m³/s) Aug. 18, 19, 1977, gage height, 1.71 ft (0.521 m).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 800 ft³/s (22.7 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 15	1800	1610	45.6	5.73	1.746	May 3	0230	913	25.9	4.76	1.451
Mar. 31	0330	*1990	56.4	6.26	1.908						

Minimum discharge, 30 ft³/s (0.85 m³/s) Sept. 4.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 20 to May 24; stage-discharge relation affected by ice Nov. 19, 20, Jan. 2-4)

2.0	25	4.0	568
2.4	72	4.5	824
2.8	138	5.0	1,110
3.2	244	6.0	1,790
3.6	388	6.5	2,190

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61	52	110	107	151	273	1890	850	451	253	53	35
2	53	50	188	95	149	269	1640	872	451	240	52	34
3	47	52	487	140	196	273	1320	889	460	228	50	33
4	45	51	315	160	202	273	1180	845	478	234	48	31
5	42	54	222	161	196	337	1140	759	501	240	46	32
6	42	67	180	158	356	447	1010	687	543	213	44	45
7	40	63	158	151	409	478	1010	662	572	196	40	91
8	40	57	133	141	557	492	933	642	587	188	39	94
9	40	51	112	141	515	562	900	652	591	199	38	74
10	39	51	123	147	447	657	911	743	626	173	38	82
11	39	51	116	168	409	702	968	770	591	158	37	88
12	39	51	147	180	352	738	922	723	511	147	34	76
13	39	51	147	180	315	672	872	692	478	137	38	70
14	38	53	368	178	297	591	829	723	478	129	56	65
15	38	62	1290	234	280	534	813	780	465	121	56	61
16	38	72	872	293	237	511	1010	775	434	116	56	58
17	38	65	553	341	216	529	950	697	404	109	62	56
18	38	52	404	352	240	616	850	652	392	104	58	60
19	38	42	308	311	228	754	802	611	384	99	53	62
20	38	54	196	280	219	894	786	582	360	94	48	62
21	38	70	199	256	225	997	775	611	345	89	46	61
22	38	91	219	243	231	1090	712	682	341	86	44	60
23	38	83	219	199	234	1260	667	697	330	82	47	57
24	39	77	237	173	246	1370	647	667	315	79	46	56
25	39	102	216	204	266	1260	672	611	345	74	43	53
26	39	199	193	202	283	1270	780	543	315	70	40	52
27	39	193	178	165	293	1450	867	487	283	67	40	51
28	40	143	163	168	273	1610	867	474	269	65	39	50
29	40	127	158	173	---	1690	845	492	256	62	37	50
30	48	131	163	145	---	1870	850	478	263	60	35	50
31	54	---	149	158	---	1890	---	460	---	57	36	---
TOTAL	1284	2317	8523	6004	8022	26359	28418	20808	12819	4169	1399	1749
MEAN	41.4	77.2	275	194	287	850	947	671	427	134	45.1	58.3
MAX	61	199	1290	352	557	1890	1890	889	626	253	62	94
MIN	38	42	110	95	149	269	647	460	256	57	34	31
CFSM	.10	.19	.69	.49	.72	2.13	2.37	1.68	1.07	.34	.11	.15
IN.	.12	.22	.79	.56	.75	2.46	2.65	1.94	1.20	.39	.13	.16
AC-FT	2550	4600	16910	11910	15910	52280	56370	41270	25430	8270	2770	3470

CAL YR 1977 TOTAL 30922.0 MEAN 84.7 MAX 1290 MIN 8.0 CFSM .21 IN 2.88 AC-FT 61330
WTR YR 1978 TOTAL 121871.0 MEAN 334 MAX 1890 MIN 31 CFSM .84 IN 11.36 AC-FT 241700

13200000 MORES CREEK ABOVE ROBIE CREEK, NEAR ARROWROCK DAM, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965-72, 1975 to current year.
PERIOD OF DAILY RECORD.--December 1964 to July 1972.
REMARKS.--Miscellaneous chemical data published for water years 1973-74.
EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 27.0°C on several days during July and August 1969; minimum, 0.0°C on many days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT 26...	1000	39	130	--	12.5	10.5	--	--	--	--
DEC 27...	1545	179	98	--	-.5	2.0	--	--	--	--
FEB 01...	1700	144	113	--	7.5	2.0	--	--	--	--
APR 21...	1030	774	67	--	9.5	5.0	--	--	--	--
MAY 23...	1444	702	22	--	10.5	6.5	--	--	--	--
JUN 15...	1025	480	51	7.3	13.0	10.0	22	0	6.7	1.2
AUG 03...	1230	48	98	--	34.0	19.0	--	--	--	--
SEP 26...	1215	53	166	--	18.0	12.5	--	--	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
OCT 26...	--	--	--	--	--	--	--	--	--
DEC 27...	--	--	--	--	--	--	--	--	--
FEB 01...	--	--	--	--	--	--	--	--	--
APR 21...	--	--	--	--	--	--	--	--	--
MAY 23...	--	--	--	--	--	--	--	--	--
JUN 15...	3.3	24	.3	.5	28	0	23	2.5	.5
AUG 03...	--	--	--	--	--	--	--	--	--
SEP 26...	--	--	--	--	--	--	--	--	--

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 26...	--	--	--	--	--	--	--	--	--
DEC 27...	--	--	--	--	--	--	--	--	--
FEB 01...	--	--	--	--	--	--	--	--	--
APR 21...	--	--	--	--	--	--	--	--	--
MAY 23...	--	--	--	--	--	--	--	--	--
JUN 15...	.1	15	44	.06	57.0	.03	.02	4	5.2
AUG 03...	--	--	--	--	--	--	--	--	--
SEP 26...	--	--	--	--	--	--	--	--	--

13201500 LUCKY PEAK LAKE NEAR BOISE, ID

LOCATION.--Lat 43°31'31", long 116°03'15", in SW¼NW¼ sec.12, T.2 N., R.3 E., Ada County, Hydrologic Unit 17050112, at outlet control tower at Lucky Peak Dam on Boise River, 2 mi (3 km) upstream from diversion dam for New York Canal, 7 mi (11 km) downstream from Mores Creek, 9 mi (14 km) southeast of Boise, and at mile 63.8 (102.7 km).

DRAINAGE AREA.--2,680 mi² (6,940 km²), approximately.

PERIOD OF RECORD.--October 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). Prior to May 13, 1955, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by earth-fill dam. Storage began Oct. 16, 1954. Dam completed in February 1955. Capacity, 307,040 acre-ft (378.6 hm³) between elevations 2,827.0 ft (861.67 m), sill of outlet gates, and 3,060.0 ft (932.69 m), spillway crest. Minimum proposed operating level, 2,905.0 ft (885.44 m), 28,770 acre-ft (35.5 hm³), but all storage can be released. Water is stored for flood control and irrigation of lands in Boise valley.

COOPERATION.--Gage-height record and capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 305,130 acre-ft (376 hm³) June 25, 1955, elevation, 3,059.32 ft (932.481 m); minimum since near-full capacity was attained on June 25, 1955, 28,630 acre-ft (35.3 hm³) Dec. 21, 1961, elevation, 2,904.83 ft (885.392 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 295,800 acre-ft (365 hm³) June 26, elevation, 3,055.97 ft (931.460 m); minimum, 38,400 acre-ft (47.3 hm³) Nov. 23, elevation, 2,916.10 ft (888.827 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

2,910.0	32,900	2,980.0	125,100
2,920.0	42,200	3,000.0	162,800
2,930.0	52,700	3,020.0	205,600
2,940.0	64,600	3,040.0	253,600
2,960.0	92,400	3,060.0	307,000

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44250	40560	39290	52130	87970	98120	135400	168000	239600	293900	293400	289700
2	44770	40420	39490	52160	88410	98060	144400	168300	241800	293600	293400	286000
3	45000	40310	40000	52250	88980	98060	151800	168600	243800	293300	293800	282500
4	44440	40240	40660	52420	89480	98140	156900	168500	246000	293500	294100	279000
5	44550	40210	41170	52820	90160	98240	159800	168600	248300	293100	294100	274400
6	44610	40120	41390	55210	90950	98560	161400	168600	250800	293200	294000	269000
7	44570	39940	41530	56930	91950	98920	162000	168400	253400	293500	293600	264200
8	44200	39920	41630	58520	93140	99370	161500	168300	256300	294100	293700	259800
9	43990	39790	41680	60170	94350	99910	160700	168300	260000	294600	293700	255200
10	43840	39660	41720	61630	95550	100700	158800	169900	264200	294600	293700	251400
11	43640	39560	41790	64780	96640	101700	158600	172500	268300	294200	293900	246900
12	43410	39460	41900	67370	97360	102400	159400	176600	272100	293700	294000	242100
13	43130	39360	42060	69980	98060	103100	159700	179900	276400	293000	293800	236600
14	42940	39250	42710	70830	98790	103700	160300	183000	279400	292700	293600	232200
15	42850	39160	45000	75160	99540	104300	161300	185700	281700	292700	293200	228600
16	42670	39100	47040	76960	99670	104700	162800	189100	284200	292700	292800	224600
17	42510	39040	48070	78520	99500	105200	164000	192600	285900	293300	292200	220000
18	42340	38940	48620	79720	99450	105800	164700	196500	287700	293500	291500	215100
19	42190	38790	49050	80770	99180	106800	165000	199900	289600	293400	292500	210600
20	42040	38670	49340	81590	96960	108200	165100	203700	291500	293200	293900	206300
21	41890	38560	49540	82270	98740	109900	165200	207100	292500	293300	293800	201500
22	41770	38450	49680	83020	98590	111800	165300	211100	292900	293200	292900	196800
23	41640	38400	50140	83610	98430	114000	165000	214000	293600	293700	292900	192600
24	41500	38420	50490	84130	98320	116000	164900	216000	294400	294000	293100	187800
25	41350	38500	50260	84660	98280	118000	164800	218100	295300	294300	293500	183500
26	41230	38560	51070	85270	98230	120800	165300	221600	295800	294300	293900	179400
27	41100	38810	51350	85800	98240	122400	166100	225600	295600	294300	293800	174800
28	40960	39080	51550	86310	98180	122500	166800	224400	295000	294200	293300	170400
29	40840	39220	51750	86700	---	121700	167300	232900	294600	294000	293100	165900
30	40710	39270	51940	87100	---	121400	167600	235600	294300	293700	293200	161100
31	40650	---	52060	87530	---	126000	---	237700	---	293200	292600	---
MAX	45000	40560	52060	87530	99670	126000	167600	237700	295800	294600	294100	289700
MIN	40650	38400	39290	52130	87970	98060	135400	168000	239600	292700	291500	161100
(†)	18.46	17.02	29.42	56.76	63.78	80.54	2.37	33.63	55.41	54.93	54.80	99.15
(‡)	-3330	-1380	+12790	+35470	+10650	+27820	+41600	+70100	+56600	-1400	-300	-131600

CAL YR 1977........... ‡ -34030
WTR YR 1978........... ‡ +117020

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet.

13202000 BOISE RIVER NEAR BOISE, ID

LOCATION.--Lat 43°31'40", long 116°03'31", in NE¼ sec.11, T.2 N., R.3 E., Ada County, Hydrologic Unit 17050112, at gate-control house at outlet works of Lucky Peak Lake, 1.8 mi (2.9 km) upstream from diversion dam for New York Canal, 7.5 mi (12.1 km) downstream from mouth of Mores Creek, 9 mi (14.5 km) southeast of Boise, and at mile 63.6 (102.3 km).

DRAINAGE AREA.--2,680 mi^2 (6,940 km^2), approximately. Mean altitude, 5,910 ft (1,801 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1895 to September 1916 (no winter records 1904-5, 1907), November 1950 to September 1954 (discharge measurements only), October 1954 to current year. Published as "near Highland" 1905-15 and as "below Moore Creek, near Arrowrock" 1916.

REVISED RECORDS.--WSP 1347: 1895-1901, 1904.

GAGE.--Remote gate-opening recorder and nonrecording gage on each of six slide gates, remote recorder and nonrecording gage on hollow-jet valve, and remote water-stage recorder on Lucky Peak Lake. Elevation of sills of six slide gates, 2,827.0 ft or 861.670 m (levels by Corps of Engineers). Prior to Mar. 18, 1905, nonrecording gages at sites about 1 mi (1.6 km) downstream at different datums. Mar. 18, 1905, to Mar. 20, 1915, nonrecording gages, and Mar. 21, 1915, to Sept. 30, 1916, water-stage recorders at sites 5 to 7 mi (8 to 11 km) upstream at different datums.

REMARKS.--Records good. Daily discharge computed from relations between discharge, head, and gate openings adjusted on the basis of current-meter measurements. Unadjusted discharges furnished by U.S. Corps of Engineers. Flow regulated by Lucky Peak Lake (see sta 13201500), Arrowrock Reservoir (see sta 13194000), and Anderson Ranch Reservoir (see sta 13190000). Diversions above station for irrigation of about 2,300 acres (9.31 hm^2) in the basin and about 5,000 acres (20.2 hm^2) outside the basin near Mountain Home (1966 determination).

COOPERATION.--Records of gate operation, discharge, stage in Lucky Peak Lake, and gate rating curves furnished by Corps of Engineers.

AVERAGE DISCHARGE.--41 years (1896, 1898-1903, 1906, 1908-16, 1955-78), 2,976 ft^3/s (84.28 m^3/s), 2,156,000 acre-ft/yr (2,658 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 35,500 ft^3/s (1,010 m^3/s) June 14, 1896; no flow on several days in 1954, 1955, 1957-59, 1961, 1969, 1974, 1978, when gates were closed.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 7,240 ft^3/s (205 m^3/s) Apr. 26; minimum, no flow Oct. 5-7, 18, Nov. 4, Dec. 14, Mar. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	258	118	118	100	1130	1180	2060	7040	4690	4690	4530	4070
2	258	118	118	100	1130	1180	2060	6660	4650	4690	4530	4050
3	241	118	118	100	1130	1180	2060	6560	4640	4690	4530	4050
4	206	106	118	100	1130	1180	2660	6660	4640	4620	4530	4020
5	69	110	118	100	1130	1180	3190	6700	4640	4580	4530	3960
6	.00	118	118	100	1160	1180	3430	6700	4640	4580	4530	3780
7	59	118	118	100	1180	1180	3950	6700	4640	4530	4530	3380
8	177	118	118	100	1180	1180	4120	6830	4640	4370	4500	3200
9	177	118	118	100	1180	1180	4120	6770	4640	4370	4490	2950
10	177	118	118	100	1180	1180	4810	6350	4640	4370	4490	2810
11	177	118	118	100	1180	1180	5560	6180	4640	4370	4490	2710
12	177	118	118	100	1180	1180	5770	6180	4640	4440	4490	2650
13	177	118	118	100	1180	1180	5900	6180	4640	4530	4450	2520
14	157	118	76	100	1180	1180	5970	6180	4640	4560	4430	2440
15	118	118	85	100	1180	1180	5970	6180	4640	4580	4410	2420
16	118	118	100	651	1180	1180	5910	5840	4640	4580	4330	2420
17	118	118	100	824	1180	1180	5940	5660	4640	4560	4300	2420
18	119	118	100	996	1180	1180	5970	5320	4640	4500	4240	2420
19	118	118	91	1030	1180	1180	6450	5150	4640	4500	4240	2420
20	118	118	87	1110	1180	483	6760	5150	4670	4500	4240	2420
21	118	118	87	1130	1180	76	6960	5150	4690	4500	4240	2420
22	118	118	91	1130	1180	95	7040	4810	4710	4500	4240	2420
23	118	118	100	1130	1180	204	7040	4700	4690	4500	4240	2420
24	118	118	100	1130	1180	100	7150	4740	4690	4500	4200	2420
25	118	118	100	1130	1180	100	7200	4740	4690	4510	4190	2420
26	118	118	100	1130	1180	100	7240	4740	4690	4530	4160	2440
27	118	118	100	1130	1180	720	7210	4740	4690	4530	4140	2470
28	118	118	100	1130	1180	1630	7140	4740	4690	4530	4140	2470
29	118	118	100	1130	---	2060	7110	4740	4690	4530	4140	2470
30	118	118	100	1130	---	2060	7110	4740	4690	4530	4110	2470
31	118	---	100	1130	---	2060	---	4700	---	4530	4100	---
TOTAL	4317.00	3520	3251	18541	32770	32103	163860	177530	139810	140300	134710	85530
MEAN	139	117	105	598	1170	1036	5462	5727	4660	4526	4345	2851
MAX	258	118	118	1130	1180	2060	7240	7040	4710	4690	4530	4070
MIN	.00	106	76	100	1130	76	2060	4700	4640	4370	4100	2420
AC-FT	8560	6980	6450	36780	65000	63690	325000	352100	277300	278300	267200	169600

CAL YR 1977 TOTAL 513741.00 MEAN 1408 MAX 3870 MIN .00 AC-FT 1019000
WTR YR 1978 TOTAL 936247.00 MEAN 2565 MAX 7240 MIN .00 AC-FT 1857000

13203500 LAKE LOWELL NEAR CALDWELL, ID

LOCATION.--Lat 43°34'42", long 116°44'28", in NW¼SE¼ sec.19, T.3 N., R.3 W., Canyon County, Hydrologic Unit 17050114, on outlet structure at lower embankment, 5.5 mi (8.8 km) southwest of Caldwell; and lat 43°33'30", long 116°38'55", in NW¼NW¼ sec.36, T.3 N., R.3 W., Canyon County, on outlet structure at upper embankment 5 mi (8 km) west of Nampa.

PERIOD OF RECORD.--October 1917 to September 1978 (discontinued). Prior to October 1945, published as Deer Flat Reservoir near Caldwell.

GAGE.--Nonrecording gage. Datum of gages is 2,500.5 ft (762.2 km) National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation).

REMARKS.--Reservoir is formed by two earth embankments; dams were completed and storage began in 1908. Capacity, 177,150 acre-ft (218 hm^3), between gage heights 0.0 ft (0.0 m), sill of outlet gates and 30.0 ft (9.14 m), maximum operating level. Dead storage, about 13,000 acre-ft (16.0 hm^3). Below gage height 12.0 ft (3.66 m), lake divides into two pools. Lake receives water from Boise River through New York Canal of Boise project and small amounts from local drainage. Water is used for irrigation of lower project lands, some of which are outside the Boise River basin. Figures given herein represent usable contents.

COOPERATION.--Gage readings and capacity table furnished by Water District 63.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 178,900 acre-ft (221 hm^3) Apr. 27, 28, 1922, Apr. 24, 1932, gage height, 30.18 ft (9.20 m); minimum observed, 5,390 acre-ft (6.65 hm^3) Oct. 22, 1924, gage height, 3.27 ft (1.00 m), upper pool; 0.85 ft (0.26 m), lower pool.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 175,900 acre-ft (217 hm^3) May 8, gage height, 29.87 ft (7.580 m); minimum observed, 23,500 acre-ft (29.0 hm^3) Oct. 1, gage height, 7.87 ft (2.399 m), upper pool; 7.67 ft (2.167 m), lower pool.

Capacity table (gage height, in feet, and contents, in acre-feet)

(Upper pool)		(Lower pool)		(Lake)	
7.0	11,600	7.0	8,760	12.0	43,100
8.0	13,700	8.0	10,600	15.0	60,000
10	18,400	10	14,800	20.0	93,000
12	23,700	12	19,400	25.0	132,000
				30.0	177,200

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
INSTANTANEOUS OBSERVATIONS AT 1200

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23500	28700	33000	36500	65800	116300	147200	173900	165000	140400	117600	95600
2	23700	28800	33000	36600	67500	118100	147100	174500	164300	139700	116000	96200
3	23700	29000	33100	36600	69400	120200	147000	174900	164000	139600	114500	97100
4	23800	29000	33200	37000	71800	122200	146700	175200	163500	139000	112900	98000
5	24000	29200	33300	37000	73200	123900	146700	175200	163000	139500	111100	99400
6	24200	29300	33400	37200	74600	125600	146500	175500	162000	140800	110100	100200
7	24900	29500	33700	37200	76800	127700	146500	175800	160700	142300	108500	101200
8	25100	29600	33800	37300	78800	128800	147200	175900	159600	143700	107100	102400
9	25200	29700	34000	37400	80900	130600	147700	175700	158500	144700	105400	104000
10	25400	29900	34100	37600	82500	132700	148700	175500	156800	145600	103300	105300
11	25500	29800	34200	37800	83900	134300	149500	174800	156100	145300	101800	106400
12	25600	29900	34300	37900	86600	135700	150900	174200	155600	143900	100300	107400
13	25800	30000	34400	38200	88300	137700	152300	174400	154800	142900	99000	108500
14	26000	30100	34600	38300	90000	139500	153800	174000	154500	142400	98000	109500
15	26200	30200	34900	38400	91600	141100	155400	173800	153900	141300	97100	110100
16	26400	30300	35100	38500	93500	142800	157200	173200	153800	140500	96700	110900
17	26500	30400	35300	39100	95600	144600	158200	172500	153100	139400	96100	111800
18	26700	30700	35400	39700	97200	146100	159400	171900	152100	137500	95900	111200
19	26900	30800	35500	41400	99100	147900	160600	171000	151000	136100	96200	113400
20	27100	30900	35700	43100	100900	149400	161100	170700	149000	134800	96000	114000
21	27100	31000	35800	45200	102700	150100	162400	170300	147800	133300	95800	114800
22	27300	31100	35900	47100	104300	150100	163800	169500	146700	132600	95700	115500
23	27500	31300	36000	48700	106200	149700	165200	168100	145600	131300	95200	116600
24	27700	31700	36000	50700	107900	149500	166400	167200	144400	130300	95100	117500
25	27800	32200	36100	52500	109700	149100	167500	166800	143900	128900	95100	118300
26	28000	32300	36100	54500	111500	148800	169200	166300	143600	126200	94900	119100
27	28200	32400	36200	56500	113200	148400	170800	166100	142900	124600	95100	119900
28	28200	32500	36200	58600	115100	148200	171800	166000	142600	122600	95300	120200
29	28300	32700	36200	60500	---	148000	172800	165900	142200	121000	95600	120600
30	28400	32900	36400	62200	---	147700	173300	165600	141600	120300	95600	121000
31	28600	---	36500	63900	---	147500	---	165300	---	118800	95200	---
MAX	28600	32900	36500	63900	115100	150100	173300	175900	165000	145600	117600	121000
MIN	23500	28700	33000	36500	65800	116300	146500	165300	141600	118800	94900	95600
(†)	2508.98	2509.93	2510.69	2515.65	2522.93	2526.80	2529.61	2528.77	2526.13	2523.39	2520.33	2523.66
(‡)	+5200	+4300	+3600	+27400	+51200	+32400	+25800	-8000	-23700	-22800	-23600	+25800

CAL YR 1977........... ‡ -86100
WTR YR 1978........... ‡ +97600

† Gage height, in feet, at end of month.
‡ Change in contents, in acre-feet.

13204500 DIVERSIONS FROM BOISE RIVER BETWEEN NEAR BOISE AND AT BOISE GAGING STATIONS, ID

Between near Boise and at Boise gaging stations (prior to 1955 water year, published as between Dowling Ranch and Boise gaging stations), six principal canals and several small farm laterals divert water from Boise River for irrigation.

Records of total diversion during April to September for each canal for years 1919-46, combined daily diversion covering period April to September for years 1947-67, combined daily diversions for water years 1968-75 and daily flow of New York Canal February 1939 to October 1948 are published in reports of Geological Survey. Records of daily diversion for each canal from 1916-77 are on file in office of the Idaho Department of Water Resources. Prior to October 1967, there was no record of October to March diversions except for New York Canal. Miscellaneous diversions or pumping from Boise River above "at Boise" was reported by watermaster to be approximately as follows in acre-ft (m^3): October, 91 (112,000); April, 69 (85,100); May, 463 (571,000); June, 502 (619,000); July, 486 (599,000); August, 458 (565,000); and September, 366 (451,000).

Records show summation of discharge for the recorded diversions. Staff gages on canals are read daily or several times weekly and discharge measurements are made weekly. Records furnished by watermaster for Boise River.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

1978	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	6.52	.000	.000	461	1039	677	1162	2584	3244	3280	3233	2289
MAX	14	.00	.00	1000	1050	1050	2060	3130	3390	3320	3270	3170
MIN	.00	.00	.00	.00	1000	.00	.00	1640	3080	3230	3180	1860

CAL YR 1977 MEAN 921 MAX 2710 MIN .00
WTR YR 1978 MEAN 1500 MAX 3390 MIN .00

BOISE RIVER BASIN

13212995 DIVERSIONS FROM BOISE RIVER BETWEEN AT BOISE AND NEAR PARMA GAGING STATIONS, ID

Between at Boise and near Parma gaging stations (prior to the 1974 water year, published as between at Boise and Notus gaging stations), 27 canals and several small farm laterals divert water from Boise River for irrigation.

Records of daily diversions for each canal for 1916-78 are on file in office of the Idaho Department of Water Resources. Prior to October 1967, no record available of diversions that are usually made during October and March. Miscellaneous diversions or pumping from Boise River below "at Boise" was reported by watermaster to be approximately as follows in acre-ft (m^3): October, 91 (112,000); April, 70 (86,300); May, 463 (571,000); June, 502 (619,000); July, 486 (599,000); August, 458 (565,000); September, 366 (451,000).

Records show summation of discharge for the recorded diversions. Staff gages on diversions are read daily or several times weekly and discharge measurements are made weekly. Records furnished by watermaster for Boise River.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

1978	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	320	.000	.000	.000	.000	.000	416	1680	2183	2172	2104	1388
MAX	790	.00	.00	.00	.00	.00	694	2150	2280	2320	2330	1820
MIN	.00	.00	.00	.00	.00	.00	.00	718	2060	1910	1810	1170

CAL YR 1977 MEAN 844 MAX 2100 MIN .00
WTR YR 1978 MEAN 861 MAX 2330 MIN .00

13205500 BOISE RIVER AT BOISE, ID

LOCATION.--Lat 43°36'33", long 116°12'27", in NE¼SW¼ sec.10, T.3 N., R.2 E., Ada County, Hydrologic Unit 17050114, on right bank at Capitol Boulevard Bridge at Boise and at mile 52.8 (85.0 km).

DRAINAGE AREA.--2,760 mi² (7,150 km²), approximately.

PERIOD OF RECORD.--March 1938 to September 1939 (gage heights only), February 1940 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,675.46 ft (815.480 m) datum of Corps of Engineers, Boise River Surveys. Prior to Apr. 30, 1943, at site 1 mi (1.6 m) upstream at datum 13.69 ft (4.173 m) higher. Apr. 30 to July 10, 1943, at site 400 ft (120 m) downstream at present datum.

REMARKS.--Records good. Flow regulated by Anderson Ranch Reservoir (see sta 13190000), Arrowrock Reservoir (see sta 13194000), and Lucky Peak Lake (see sta 13201500). New York, Ridenbaugh, and four small canals (see sta 13204500) divert between station near Boise and this station. Diversions above station for irrigation of about 203,000 acres (82,200 hm²) of which about 5,000 acres (2,020 hm²) are outside the basin near Mountain Home, about 130,000 acres (52,600 hm²) are inside the basin below station, and about 50,000 acres (20,200 hm²) are outside the basin near Lake Lowell.

AVERAGE DISCHARGE.--24 years (1955-78), 1,334 ft³/s (37.78 m³/s), 966,500 acre-ft/yr (1,192 hm³/yr), since completion of Lucky Peak Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,000 ft³/s (595 m³/s) Apr. 20, 1943, gage height, 10.00 ft (3.048 m), site and datum then in use; minimum, 1.3 ft³/s (0.037 m³/s) Feb. 3, 1955, gage height, 2.21 ft (0.674 m); minimum daily, 3.5 ft³/s (0.099 m³/s) Jan. 19-23, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 5,460 ft³/s (155 m³/s) Apr. 29, 30, May 1; minimum, 68 ft³/s (1.93 m³/s) Feb. 25, gage height, 2.36 ft (0.719 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Dec. 27 to Mar. 7)

2.3	80	4.0	1,920
2.5	160	4.5	2,660
2.7	270	5.0	3,430
3.0	550	5.5	4,200
3.5	1,220	6.4	5,600

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	228	112	146	94	98	120	2020	5460	1500	1400	1300	886
2	252	124	160	96	98	120	2020	5190	1500	1400	1320	870
3	228	129	142	106	115	124	1990	4880	1480	1360	1300	855
4	190	129	128	106	116	124	2480	4820	1470	1370	1280	847
5	165	133	128	106	108	137	3010	4820	1450	1340	1290	871
6	195	129	124	120	112	133	3000	4820	1440	1330	1280	843
7	206	133	120	106	129	129	3260	4820	1430	1300	1280	696
8	185	129	120	106	124	129	3510	4810	1430	1140	1250	526
9	175	129	120	108	133	129	3510	4510	1410	1150	1230	526
10	160	133	120	124	133	120	3770	3900	1400	1140	1240	526
11	156	137	128	124	142	124	4330	3500	1410	1110	1230	526
12	146	133	133	120	133	124	4540	3420	1410	1150	1230	540
13	151	133	146	120	129	90	4630	3420	1410	1230	1230	540
14	156	129	142	112	129	133	4670	3420	1410	1250	1210	528
15	133	133	120	133	133	108	4670	3400	1410	1270	1190	520
16	133	133	112	146	124	112	4710	3030	1410	1270	1130	508
17	129	129	108	165	120	112	4760	2710	1410	1270	1070	506
18	120	133	112	151	120	133	4820	2440	1410	1260	1050	510
19	120	142	112	126	120	124	4840	2170	1430	1260	1020	523
20	124	142	98	120	124	112	5300	2140	1400	1260	1010	526
21	124	133	101	106	124	120	5320	2110	1400	1260	996	523
22	124	137	94	104	124	170	5320	1890	1360	1270	996	526
23	124	133	101	101	124	142	5320	1850	1340	1300	999	528
24	124	142	101	101	120	116	5330	1830	1340	1300	1000	539
25	129	146	101	94	120	108	5370	1840	1380	1300	994	542
26	133	137	101	90	124	105	5380	1830	1390	1320	967	547
27	133	137	101	87	124	405	5380	1800	1400	1300	954	545
28	129	133	98	87	124	1470	5410	1580	1380	1300	954	544
29	146	133	108	87	---	1990	5460	1550	1380	1320	953	587
30	146	137	115	84	---	1990	5460	1540	1400	1320	931	598
31	129	---	104	95	---	1990	---	1520	---	1300	898	---
TOTAL	4813	3992	3644	3444	3424	11043	129640	96020	42420	39570	34784	18262
MEAN	155	133	118	111	122	356	4321	3097	1414	1276	1122	609
MAX	252	146	160	165	142	1990	5460	5460	1500	1400	1320	886
MIN	120	112	94	84	98	90	1990	1520	1340	1110	898	506
AC-FT	9550	7920	7230	6830	6790	21900	257100	190500	84140	78490	68990	36220

CAL YR 1977 TOTAL 176831 MEAN 484 MAX 1230 MIN 83 AC-FT 350700
WTR YR 1978 TOTAL 391056 MEAN 1071 MAX 5460 MIN 84 AC-FT 775700

13210050 BOISE RIVER NEAR MIDDLETON, ID

LOCATION.--Lat 43°41'06", long 116°34'22", in SE¼SE¼SE¼NE¼ sec.16, T.4 N., R.2 W., Canyon County Hydrologic Unit 17050114, on right bank 2.9 mi (4.7 km) southeast of Middleton and at mile 29.1 (46.8 km).

DRAINAGE AREA.--3,050 mi² (7,900 km²), approximately.

PERIOD OF RECORD.--December 1974 to current year (low-flow periods only).

GAGE.--Water-stage recorder. Datum of gage is 2,410 ft (735 m) from topographic map.

REMARKS.--Records fair. Natural flow of stream affected by regulation of Lucky Peak Lake (see sta 13201500) and other upstream storage reservoirs, diversions above station for irrigation of about 296,000 acres (120,000 hm²), and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Minimum discharge, 38 ft³/s (1.08 m³/s) Sept. 4, 1977, gage height, 3.66 ft (1.116 m).

EXTREMES FOR CURRENT YEAR.--Minimum discharge, 108 ft³/s (3.06 m³/s) Sept. 28, gage height, 4.38 ft (1.335 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

4.0	78	5.0	360
4.2	112	5.6	605
4.5	185		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	252	245	255	234	248	266		---	477	371	171	174
2	259	241	266	224	245	259		---	465	386	168	162
3	252	245	316	241	276	255		---	441	394	157	171
4	224	248	280	238	287	273		---	429	426	171	179
5	194	259	273	238	280	305		---	453	422	204	176
6	208	269	273	259	276	330		---	394	345	208	259
7	234	255	266	252	290	305		---	383	323	208	319
8	224	245	259	241	337	298		---	375	319	211	234
9	218	248	259	245	337	301		---	323	298	198	204
10	198	252	255	287	348	294		---	356	273	191	194
11	188	248	262	337	348	273		---	398	221	191	214
12	179	248	273	326	348	319		---	386	218	191	241
13	171	252	283	301	330	269		---	394	266	218	283
14	176	252	305	290	319	266		---	390	231	224	252
15	218	255	334	326	323	280		---	485	218	248	208
16	252	248	294	360	316	245		---	356	182	245	185
17	266	245	280	406	298	252		---	348	182	245	182
18	259	245	283	394	294	241		---	345	188	234	182
19	248	248	266	360	290	262		---	360	179	204	194
20	248	245	262	337	294	248		---	337	165	204	176
21	248	252	241	316	298	231		---	345	168	191	155
22	248	262	245	298	290	280		---	330	171	176	157
23	248	266	245	280	287	280		642	276	174	188	140
24	248	269	248	273	283	280		583	326	168	221	133
25	248	330	238	269	280	245		596	363	160	221	127
26	252	290	234	266	276	234		574	406	171	204	120
27	259	266	231	259	276	231		596	348	179	231	127
28	255	259	234	252	269	---		565	305	168	218	122
29	259	255	234	248	---	---		522	330	176	214	118
30	269	252	255	245	---	---		506	326	179	228	127
31	266	---	255	241	---	---		493	---	185	176	---
TOTAL	7268	7694	8204	8843	8343	---	---	---	11250	7506	6359	5515
MEAN	234	256	265	285	298	---	---	---	375	242	205	184
MAX	269	330	334	406	348	---	---	---	485	426	248	319
MIN	171	241	231	224	245	---	---	---	276	160	157	118
AC-FT	14420	15260	16270	17540	16550	---	---	---	22310	14890	12610	10940

CAL YR 1977 TOTAL 65732 MEAN 180 MAX 605 MIN 42 AC-FT 130400

13213000 BOISE RIVER NEAR PARMA, ID

LOCATION.--Lat 43°46'54", long 116°58'17", in NE¼SE¼SE¼ sec.7, T.5 N., R.5 W., Canyon County, Hydrologic Unit 17050114, on left bank at county road crossing, 1.2 mi (1.9 km) west of Parma, and at mile 3.8 (6.1 km).

DRAINAGE AREA.--3,970 mi² (10,300 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1938 to June 1939 (gage heights only), September 1971 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,196.49 ft (669.49 m) National Geodetic Vertical Datum of 1929. March 1938 to June 1939, nonrecording gage 1.4 mi (2.3 km) upstream at different datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--7 years, 1,813 ft³/s (51.34 m³/s), 1,314,000 acre-ft/yr (1,620 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,840 ft³/s (222 m³/s) Mar. 3, 1972, gage height, 13.01 ft (3.965 m); minimum, 93 ft³/s (2.63 m³/s) Apr. 29, 1977, gage height, 6.16 ft (1.88 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Apr. 20, 1943, reached a discharge of about 20,000 ft³/s (566 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,670 ft³/s (161 m³/s) Apr. 28, gage height, 11.96 ft (3.645 m); minimum, 375 ft³/s (10.6 m³/s) June 9, gage height, 7.12 ft (2.170 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

7.3	461	10.0	2,790
8.0	915	11.0	4,180
9.0	1,730	12.0	5,740

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	777	791	763	735	777	819	2790	5560	908	818	611	834
2	763	763	777	715	770	805	2860	5510	798	987	580	856
3	729	763	827	729	798	791	2810	5140	749	1130	580	885
4	708	770	812	722	900	798	2820	4860	763	1290	586	915
5	662	777	770	729	841	863	3470	4790	756	1440	643	923
6	630	805	763	742	841	967	3710	4810	649	1270	662	1030
7	649	770	763	770	885	915	3840	4670	568	1140	669	1490
8	611	770	742	742	1000	863	4120	4520	514	1010	636	1620
9	605	777	735	735	990	863	4190	4240	473	846	617	1490
10	580	777	742	834	1050	856	4110	3850	538	634	611	1420
11	593	763	756	1030	1000	848	4310	3260	795	715	605	1450
12	574	763	784	1050	1000	856	4660	3080	845	675	630	1390
13	562	763	784	975	960	863	4730	3000	765	702	749	1330
14	556	756	834	915	930	798	4780	2930	739	643	1020	1300
15	729	756	923	997	938	812	4790	2880	692	586	1040	1210
16	885	756	923	1170	945	784	4830	2780	607	599	1020	1100
17	915	735	848	1210	893	763	4920	2340	613	636	1030	1060
18	908	729	841	1210	870	770	4870	2130	644	617	1000	1070
19	878	729	812	1100	863	770	4840	1740	848	593	953	1050
20	863	729	777	1040	870	763	5110	1560	772	593	915	1010
21	848	729	763	990	885	749	5380	1440	678	586	915	953
22	848	777	763	953	878	742	5430	1400	673	599	777	930
23	856	777	770	908	870	798	5460	1060	628	617	805	900
24	848	805	763	870	863	812	5440	997	581	649	863	819
25	827	938	749	856	870	756	5460	1070	738	551	834	777
26	812	938	735	841	863	722	5490	1100	937	516	805	763
27	798	841	729	827	856	708	5560	1090	874	545	863	695
28	805	805	722	805	841	1060	5590	1000	798	574	908	708
29	805	791	722	798	---	2250	5560	1000	779	580	856	770
30	827	770	749	791	---	2660	5570	1030	746	611	841	870
31	819	---	791	777	---	2750	---	1000	---	675	848	---
TOTAL	23270	23413	24232	27566	25047	30574	137500	85837	21488	23627	24472	31616
MEAN	751	780	782	889	895	986	4583	2769	716	762	789	1054
MAX	915	938	923	1210	1050	2750	5590	5560	937	1440	1040	1620
MIN	556	729	722	715	770	708	2790	997	473	516	580	695
AC-FT	46160	46440	48060	54680	49680	60640	272700	170300	42580	46860	48540	62710

CAL YR 1977 TOTAL 199079 MEAN 545 MAX 975 MIN 99 AC-FT 394900
WTR YR 1978 TOTAL 478624 MEAN 1311 MAX 5590 MIN 473 AC-FT 949400

13213000 BOISE RIVER NEAR PARMA, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, CHEMICAL (LOW LEVEL) (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	HARDNESS (MG/L AS CACO3)
OCT 12...	1100	575	588	8.0	11.5	10.0	3	10.1	97	--	360	180
NOV 11...	1030	761	558	8.3	8.0	7.5	7	11.3	101	15	150	180
DEC 19...	1200	789	565	8.6	2.0	5.0	7	11.7	99	0	190	--
JAN 11...	1245	1060	547	8.1	3.0	6.5	40	10.0	88	71	K4800	--
FEB 23...	1400	870	* 565	8.1	5.0	7.5	15	11.4	103	8	180	--
MAR 17...	1130	771	486	8.4	10.5	16.5	15	11.3	125	16	110	--
APR 12...	1115	4750	* 155	8.1	22.5	9.0	20	10.2	95	19	460	--
MAY 10...	1230	3780	149	8.3	19.5	12.5	5	9.6	97	30	700	--
JUN 07...	1200	570	439	8.0	25.5	19.0	25	8.5	98	20	1100	--
JUL 10...	1415	831	* 452	8.3	26.0	21.5	10	8.9	108	13	290	--
AUG 07...	1230	668	* 498	8.1	32.5	22.0	20	7.9	97	20	500	160
SEP 06...	1230	1060	* 478	8.0	17.0	18.0	5	7.9	90	33	>300	--

DATE	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
OCT 12...	0	49	14	64	43	2.1	4.5	260	0	210	64	21
NOV 11...	45	49	15	60	41	1.9	4.8	170	0	139	65	22
DEC 19...	--	--	--	--	--	--	--	220	22	217	--	--
JAN 11...	--	--	--	--	--	--	--	260	0	213	--	--
FEB 23...	--	--	--	--	--	--	--	250	0	205	--	--
MAR 17...	--	--	--	--	--	--	--	240	5	205	--	--
APR 12...	--	--	--	--	--	--	--	71	0	58	--	--
MAY 10...	--	--	--	--	--	--	--	71	0	58	--	--
JUN 07...	--	--	--	--	--	--	--	170	0	139	--	--
JUL 10...	--	--	--	--	--	--	--	170	0	139	--	--
AUG 07...	0	45	11	53	41	1.8	4.7	220	0	180	49	20
SEP 06...	--	--	--	--	--	--	--	260	0	213	--	--

* Not a field determination.
K Results based on count outside ideal colony count range.

13213000 BOISE RIVER NEAR PARMA, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)
OCT 12...	.7	32	368	.50	571	5	2.0	--	--	.45	2.5	11
NOV 11...	--	33	371	.50	762	7	2.7	.10	.73	.83	3.5	16
DEC 19...	--	34	370	.50	788	22	2.9	.09	.43	.52	3.4	15
JAN 11...	--	31	375	.51	1070	111	3.0	.12	2.0	2.1	5.1	23
FEB 23...	--	32	353	.48	629	52	2.9	.08	.57	.65	3.6	16
MAR 17...	--	29	335	.46	697	41	3.0	.01	.78	.79	3.8	17
APR 12...	--	16	106	.14	1360	69	.77	.06	.21	.27	1.0	4.6
MAY 10...	--	15	98	.13	1000	30	.19	.01	.41	.42	.61	2.7
JUN 07...	--	25	272	.37	419	36	1.3	.08	.86	.94	2.2	9.9
JUL 10...	--	28	286	.39	642	64	1.7	.03	.58	.61	2.3	10
AUG 07...	--	26	315	.43	568	66	.13	.03	.57	.60	.73	3.2
SEP 06...	--	31	317	.43	907	13	1.7	.05	1.1	1.1	2.8	12

DATE	PHOSPHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	OIL AND GREASE (MG/L)
OCT 12...	.27	--	--	--	--	--	--	--	--	--	--	--
NOV 11...	.32	10	3	8	10	360	23	.1	1	20	2.6	0
DEC 19...	.37	9	2	0	14	560	28	.0	0	20	3.1	0
JAN 11...	.74	11	2	0	11	2600	17	.1	1	30	7.7	0
FEB 23...	.33	9	2	10	5	880	31	.0	1	20	6.0	0
MAR 17...	.34	11	5	10	5	820	120	.0	0	30	3.9	0
APR 12...	.17	4	4	0	7	1900	17	.0	0	30	4.1	0
MAY 10...	.16	4	3	10	4	790	12	.0	0	0	3.3	0
JUN 07...	.32	10	3	0	35	1600	9	.1	1	30	3.9	0
JUL 10...	.29	5	1	10	8	1600	23	.0	0	40	5.2	0
AUG 07...	.29	9	6	10	8	1200	27	.0	0	20	4.9	0
SEP 06...	.28	12	5	0	9	370	33	.0	0	70	5.7	0

13213100 SNAKE RIVER AT NYSSA, OR

LOCATION.--Lat 43°52'36", long 116°59'02", in NW¼SW¼NW¼ sec.33, T.19 S., R.47 E., Malheur County, Hydrologic Unit 17050115, on left bank 300 ft (90 m) upstream from U.S. Highway 20-26 bridge at Nyssa, 2.3 mi (3.7 km) downstream from Boise River, and at mile 385.2 (619.8 km).

DRAINAGE AREA.--58,700 mi² (152,000 km²), approximately.

PERIOD OF RECORD.--November 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,170 ft (661 m) from topographic map.

REMARKS.--Records excellent.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 41,900 ft³/s (1,190 m³/s) Apr. 16, 1975, and Apr. 13, 1976 gage height, 10.72 ft (3.267 m); minimum, 4,330 ft³/s (123 m³/s) July 1, 1977, gage height, 4.00 ft (1.219 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 30,900 ft³/s (875 m³/s) Apr. 29, gage height, 9.12 ft (2.780 m); minimum, 6,340 ft³/s (180 m³/s) July 20, gage height, 4.51 ft (1.375 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Mar. 20 to May 2)

4.5	6,300	7.0	18,700
5.0	8,450	8.0	24,600
6.0	13,200	9.0	30,800

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8990	8770	9270	9180	10200	11200	15100	29800	13000	7350	6930	8810
2	8770	8990	9360	9040	10200	10700	16100	28500	12200	7310	7180	8770
3	8320	8810	9220	9270	10300	11000	14100	26900	10200	7570	7010	8900
4	8280	8860	9080	9130	10400	11400	14400	25200	9080	8140	6680	9080
5	8810	8860	9180	9130	10600	11600	14000	23400	8900	8230	6800	9130
6	8950	8860	9450	9130	10300	11900	14700	21100	8630	8680	7140	9500
7	8900	8540	9180	9540	9880	12300	14900	20000	7880	8770	7490	11700
8	8680	8770	9270	9130	10800	12400	16600	23400	8590	9310	7570	12300
9	8720	8860	9270	8720	11600	11900	19000	22000	8280	9040	7140	12700
10	8590	8720	9130	9270	12600	11700	17600	20000	8140	8720	7400	12700
11	8630	8860	9310	10100	10800	11900	18700	19700	8450	8540	7270	12900
12	8720	8810	9080	9780	10600	12400	18800	18100	8990	7270	7050	13200
13	9220	8860	9360	10200	10700	11700	18800	16100	9590	7050	7270	12800
14	9160	8680	9450	9830	9920	11400	19600	15700	9400	7270	7790	14000
15	9220	8680	9920	9690	10100	12200	19000	16600	8860	7490	7920	15700
16	9360	8540	11500	9920	9640	11700	17500	16900	8680	7100	8360	13900
17	9360	8990	11000	10800	10300	11100	18000	17200	8770	6970	8860	13100
18	9080	9220	10800	13100	9920	11900	17200	14100	8140	6630	8720	10900
19	8990	9080	9180	11700	10300	12100	17900	12200	7840	6840	9310	11500
20	9130	8950	8900	10400	9970	12200	17400	12000	8140	6470	9780	11500
21	8900	8810	9360	10200	9690	12500	18600	10900	8230	6430	9830	11800
22	8810	8990	9180	9970	9920	13200	22300	11600	7620	6470	9590	12000
23	9130	9040	9080	9400	10400	13000	23900	12100	7880	6590	9830	12200
24	9310	9270	9130	9310	10400	14100	23400	14500	7880	6970	9690	12200
25	8810	9500	8950	10300	10800	14200	23200	13800	7970	7660	8990	12200
26	8900	9640	9080	10500	10700	14000	22800	13400	7880	6970	8860	12000
27	9080	9730	8990	10400	10600	13100	24400	14300	7700	6800	8630	12000
28	8990	9500	9180	10100	10900	12700	26700	14800	7140	6760	8950	11800
29	9040	9690	9130	10300	---	14800	30200	13700	7350	6680	8680	10900
30	8950	9640	9450	10100	---	15100	30400	13800	7220	6680	8540	11600
31	8770	---	9450	10100	---	14400	---	13400	---	6970	8680	---
TOTAL	276590	270520	291890	307740	292540	385800	585300	545200	258630	229730	253940	351790
MEAN	8922	9017	9416	9927	10450	12450	19510	17590	8621	7411	8192	11730
MAX	9360	9730	11500	13100	12600	15100	30400	29800	13000	9310	9830	15700
MIN	8280	8540	8900	8720	9640	10700	14000	10900	7140	6430	6680	8770
AC-FT	548600	536600	579000	610400	580300	765200	1161000	1081000	513000	455700	503700	697800

CAL YR 1977 TOTAL 3171800 MEAN 8690 MAX 13800 MIN 4480 AC-FT 6291000
WTR YR 1978 TOTAL 4049670 MEAN 11090 MAX 30400 MIN 6430 AC-FT 8033000

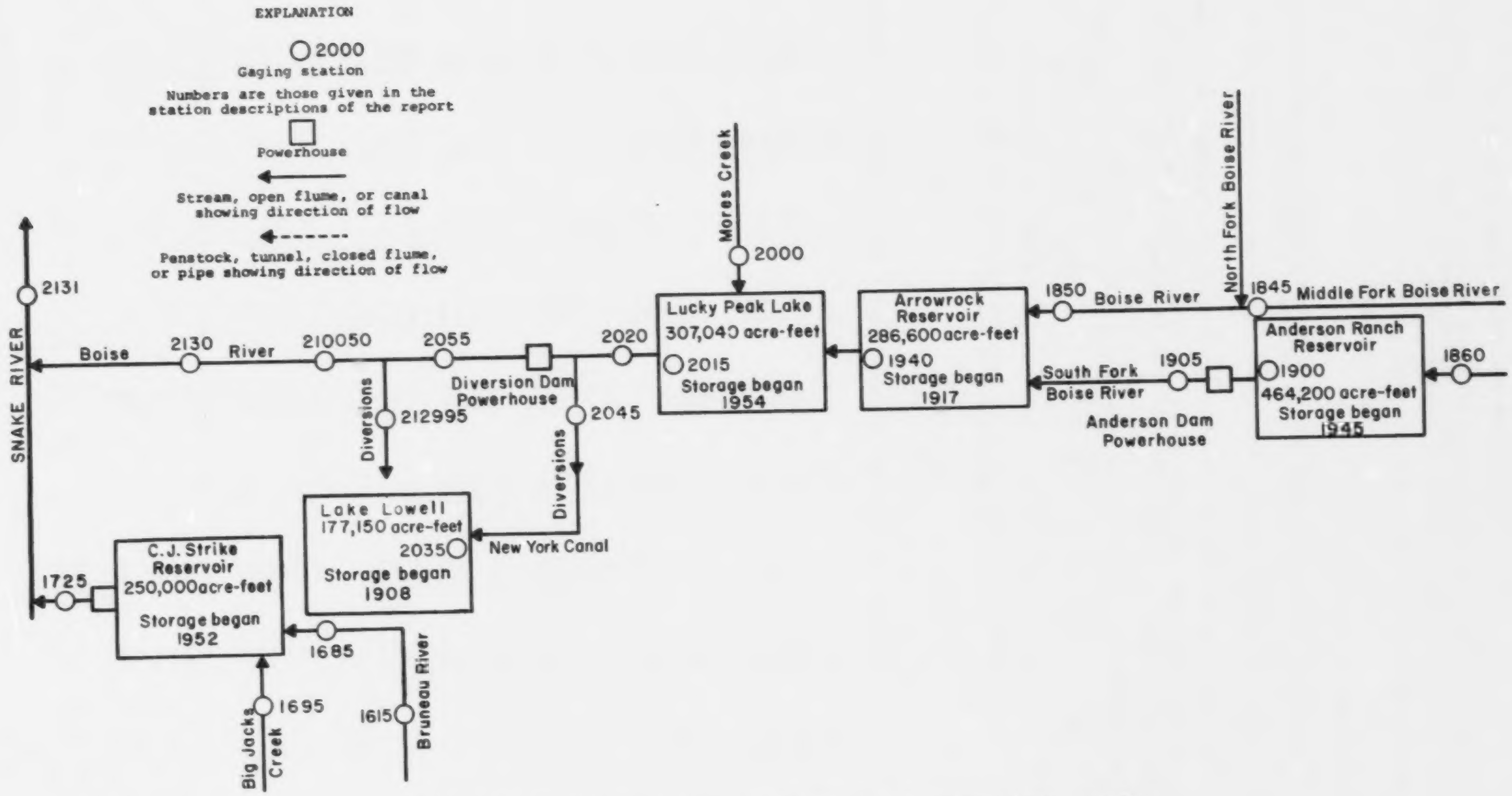
EXPLANATION
2000
Gaging station
Numbers are those given in the station descriptions of the report
Powerhouse
Stream, open flume, or canal showing direction of flow
Penstock, tunnel, closed flume, or pipe showing direction of flow
Mores Creek
2000
North Fork Boise River
1845
Middle Fork Boise River
1850
Boise River
Anderson Ranch Reservoir
1900
464,200 acre-feet
Storage began
1945
1860
1905
South Fork Boise River
Anderson Dam Powerhouse
Arrowrock Reservoir
286,600 acre-feet
1940
Storage began
1917
Lucky Peak Lake
307,040 acre-feet
2015
Storage began
1954
2020
2045
Diversions
Diversion Dam Powerhouse
2055
210050
212995
Diversions
2130
2131
Boise
River
SNAKE RIVER
New York Canal
Lake Lowell
177,150 acre-feet
2035
Storage began
1908
C.J. Strike Reservoir
250,000 acre-feet
Storage began
1952
1725
1685
Bruneau River
1615
1695
Big Jacks Creek

FIGURE 13.--Gaging stations in Bruneau and Boise Rivers basins.

13235000 SOUTH FORK PAYETTE RIVER AT LOWMAN, ID

LOCATION.--Lat 44°05'05", long 115°37'10", in SW¼ sec.27, T.9 N., R.7 E., Boise County, Hydrologic Unit 17040120, Boise National Forest, on right bank 1,200 ft (366 m) upstream from Rock Creek, 0.5 mi (0.8 km) northwest of Lowman, 4,100 ft (1,249.68 m) downstream from Clear Creek, and at mile 106 (171 km).

DRAINAGE AREA.--456 mi² (1,181 km²). Mean altitude, 6,780 ft (2,066.5 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1941 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,790 ft (1,155 m), from river-profile map. Prior to Dec. 18, 1941, nonrecording gage at site 900 ft (274 m) upstream at different datum.

REMARKS.--Records good. No regulation. Several small diversions for irrigation, the return flow from which enters river above station.

AVERAGE DISCHARGE.--37 years, 886 ft³/s (25.09 m³/s), 26.39 in/yr (670 mm/yr), 641,900 acre-ft/yr (791 hm³).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,980 ft³/s (254 m³/s) June 16, 1974, gage height, 8.36 ft (2.548 m), from floodmark; minimum, 135 ft³/s (3.82 m³/s) Sept. 10, 1966, Jan. 1-2, 1978; minimum gage height, 2.22 ft (0.677 m) Sept. 10, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 3,000 ft³/s (85.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 23	1500	3000	85.0	5.30	1.615	June 10	0300	*4,680	133	6.20	1.890

Minimum discharge, 135 ft³/s (3.82 m³/s) Jan. 1, 2, gage height, 2.75 ft (0.838 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 19, 20, Jan. 3, 4)

2.7	151	4.0	1,090
3.0	298	5.0	2,500
3.5	614	6.2	4,680

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	347	251	330	188	282	330	2110	1700	2150	3100	938	488
2	320	267	417	160	288	330	1810	1840	2280	2950	896	474
3	309	267	481	261	303	336	1520	1960	2470	2810	846	468
4	293	256	436	320	288	336	1340	1930	2800	2760	808	461
5	288	277	387	330	288	347	1220	1770	3240	2600	789	488
6	277	288	370	309	309	364	1130	1630	3710	2400	771	571
7	288	272	358	298	309	381	1100	1560	4130	2420	744	652
8	277	241	336	288	320	381	1050	1530	4320	2600	727	645
9	272	226	298	289	314	411	1050	1600	4480	2520	700	578
10	267	251	336	293	303	449	1110	2030	4580	2420	683	600
11	262	246	325	293	303	488	1290	2200	3920	2480	660	622
12	256	246	330	293	303	494	1310	2020	3350	2280	652	600
13	251	241	330	282	282	468	1270	1940	3240	2090	683	585
14	251	251	592	282	293	442	1250	2180	3580	2020	709	556
15	246	288	1290	293	293	417	1270	2750	3710	2050	660	542
16	241	282	799	293	267	405	1340	2580	3440	2080	683	522
17	236	251	578	309	256	424	1250	2260	3150	1940	668	508
18	236	217	501	298	288	501	1160	2060	3100	1730	637	515
19	236	160	436	293	288	592	1150	1930	3000	1600	607	515
20	231	188	303	293	282	668	1190	1930	2970	1500	592	501
21	231	147	309	293	288	762	1140	2210	3050	1430	571	494
22	231	262	393	293	303	865	1070	2750	3140	1330	578	488
23	231	293	387	251	314	1060	1010	2950	3270	1270	578	474
24	226	303	370	212	341	1160	1010	2780	3310	1230	549	468
25	226	314	347	320	347	1020	1100	2420	3370	1210	535	455
26	236	607	325	309	347	1090	1270	2150	2930	1170	528	449
27	231	522	288	288	341	1280	1420	1960	2640	1140	522	442
28	231	424	282	272	325	1470	1460	1960	2690	1130	508	436
29	231	387	314	298	---	1660	1540	2180	2970	1100	501	430
30	272	358	320	255	---	1910	1640	2240	3070	1050	494	430
31	262	---	298	288	---	2060	---	2170	---	980	508	---
TOTAL	7992	8633	12866	8744	8465	22901	38580	65170	98010	59390	20325	15457
MEAN	258	288	415	282	302	739	1286	2102	3267	1916	656	515
MAX	347	607	1290	330	347	2060	2110	2950	4580	3100	938	652
MIN	226	160	282	160	256	330	1010	1530	2150	980	494	430
CFSM	.57	.63	.91	.62	.66	1.62	2.82	4.61	7.16	4.20	1.44	1.13
IN.	.65	.70	1.05	.71	.69	1.87	3.15	5.32	8.00	4.84	1.66	1.26
AC-FT	15850	17120	25520	17340	16790	45420	76520	129300	194400	117800	40310	30660

CAL YR 1977 TOTAL 129074 MEAN 354 MAX 1350 MIN 160 CFSM .78 IN 10.53 AC-FT 256000
WTR YR 1978 TOTAL 366533 MEAN 1004 MAX 4580 MIN 160 CFSM 2.20 IN 29.90 AC-FT 727000

13235000 SOUTH FORK PAYETTE RIVER AT LOWMAN, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.
REMARKS.--Miscellaneous chemical data published for water years 1973-75.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
NOV 02...	1100	264	89	--	8.5	5.0	--	--	--
DEC 12...	1340	324	--	--	2.0	2.5	--	--	--
FEB 01...	1245	275	92	--	5.5	3.0	--	--	--
MAR 14...	1330	440	63	--	3.5	4.5	--	--	--
APR 18...	1335	1110	73	--	14.0	7.0	--	--	--
MAY 16...	1210	2680	33	--	19.5	5.5	--	--	--
AUG 14...	1215	721	57	--	16.0	10.0	--	--	--
SEP 12...	1320	587	68	8.7	15.0	8.0	29	0	10

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
NOV 02...	--	--	--	--	--	--	--	--	--
DEC 12...	--	--	--	--	--	--	--	--	--
FEB 01...	--	--	--	--	--	--	--	--	--
MAR 14...	--	--	--	--	--	--	--	--	--
APR 18...	--	--	--	--	--	--	--	--	--
MAY 16...	--	--	--	--	--	--	--	--	--
AUG 14...	--	--	--	--	--	--	--	--	--
SEP 12...	.9	3.1	19	.3	.4	38	1	33	2.4

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
NOV 02...	--	--	--	--	--	--	--	--
DEC 12...	--	--	--	--	--	--	--	--
FEB 01...	--	--	--	--	--	--	--	--
MAR 14...	--	--	--	--	--	--	--	--
APR 18...	--	--	--	--	--	--	--	--
MAY 16...	--	--	--	--	--	--	--	--
AUG 14...	--	--	--	--	--	--	--	--
SEP 12...	.4	.7	11	49	.07	77.7	.01	.01

13236000 DEADWOOD RESERVOIR NEAR LOWMAN, ID

LOCATION.--Lat 44°17'38", long 115°38'41", in SW¼SE¼ sec.8, T.11 N., R.7 E., Valley County, Hydrologic Unit 17050120, Boise National Forest, at dam on Deadwood River, 15 mi (24 km) north of Lowman, and at mile 18.0 (29.0 km).

DRAINAGE AREA.--112 mi² (290 km²).

PERIOD OF RECORD.--October 1935 to current year.

REVISED RECORDS.--WSP 1567: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Bureau of Reclamation). Datum of National Geodetic Vertical Datum of 1929 is 22.8 ft (6.95 m) higher. Prior to July 1, 1964, nonrecording gage.

REMARKS.--Reservoir is formed by concrete-arch dam completed in 1930; storage began Nov. 2, 1930. Reported capacity, 160,400 acre-ft (198 hm³) between elevations 5,230.0 ft (1,594.10 m), minimum operating level for fish protection, 27 ft (8.2 m) above sill of emergency gate in front of needle valve, and 5,334.0 ft (1,625.80 m) crest of spillway. Storage below elevation 5,230 ft (1,594.1 m), about 1,500 acre-ft (1.85 hm³). Water is used to augment flow of Payette River at Black Canyon powerplant near Emmett and, since 1956, as supplemental irrigation supply for Emmett Irrigation District and other users. Small diversion from a tributary of Johnson Creek in Salmon River basin to Deadwood River basin for supplemental storage in Deadwood Reservoir.

COOPERATION.--Observer readings furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 5,337.43 ft (1,626.849 m) June 25, 1974; minimum observed, about 5,205 ft (1,586.5 m) Sept. 18 to Oct. 11, 1951, Aug. 30 to Sept. 30, 1973, Oct. 1-4, 1974, when reservoir was drained for repairs.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 5,335.17 ft (1,626.160 m) July 10; minimum, 5,274.96 ft (1,607.808 m) Oct. 1.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	275.06	277.46	280.30	284.78	287.79	290.15	294.71	304.82	322.54	334.78	329.43	313.01
2	275.16	277.52	280.47	284.89	287.89	290.21	295.09	305.44	322.86	334.77	328.95	312.41
3	275.24	277.61	280.60	285.04	288.02	290.30	295.44	306.09	323.25	334.77	328.42	311.82
4	275.31	277.68	280.72	285.11	288.09	290.41	295.77	306.70	323.76	334.76	327.93	311.22
5	275.41	277.80	280.82	285.32	288.21	290.50	296.05	307.23	324.37	334.76	327.47	310.64
6	275.50	277.87	280.95	285.43	288.29	290.57	296.33	307.73	325.08	334.77	326.95	310.12
7	275.56	277.93	281.03	285.51	288.47	290.66	296.58	308.23	325.84	334.91	326.44	309.60
8	275.64	277.97	281.10	285.65	288.53	290.77	296.82	308.77	326.60	335.04	325.95	309.03
9	275.72	278.04	281.20	285.74	288.66	290.85	297.01	309.36	327.36	335.11	325.44	308.44
10	275.77	278.10	281.29	285.87	288.75	290.92	297.37	310.11	328.09	335.12	324.93	307.91
11	275.85	278.19	281.46	285.96	288.83	291.02	297.66	310.88	328.70	335.10	324.41	307.32
12	275.92	278.24	281.54	286.06	288.88	291.10	297.98	311.56	329.16	335.09	323.87	306.71
13	276.01	278.32	281.77	286.16	288.96	291.18	298.30	312.25	329.60	335.05	323.42	306.10
14	276.08	278.42	282.08	286.26	289.03	291.24	298.60	312.97	330.13	335.05	322.89	305.49
15	276.15	278.55	282.52	286.37	289.12	291.32	298.97	313.79	330.52	335.01	322.39	304.86
16	276.22	278.61	282.70	286.51	289.15	291.41	299.31	314.55	330.95	334.95	321.93	304.22
17	276.29	278.66	282.98	286.60	289.23	291.50	299.61	315.26	331.35	334.93	321.37	303.57
18	276.36	278.69	283.13	286.67	289.32	291.58	299.90	315.86	331.70	334.86	320.84	302.88
19	276.44	278.74	283.25	286.75	289.39	291.68	300.21	316.51	332.06	334.79	320.30	302.14
20	276.51	278.79	283.39	286.83	289.45	291.78	300.52	317.17	332.42	334.65	319.76	301.33
21	276.57	278.87	283.54	286.91	289.52	291.91	300.80	317.92	332.81	334.24	319.23	300.51
22	276.63	279.03	283.70	286.98	289.59	292.06	301.11	318.74	333.21	333.97	318.67	299.68
23	276.71	279.09	283.89	287.02	289.68	292.22	301.34	319.52	333.57	333.56	318.13	298.83
24	276.78	279.14	283.99	287.11	289.78	292.39	301.62	320.13	333.88	333.10	317.59	297.98
25	276.87	279.42	284.09	287.23	289.86	292.55	301.92	320.53	334.15	332.69	317.02	297.13
26	276.94	279.60	284.22	287.30	289.94	292.73	302.33	320.86	334.28	332.23	316.46	296.38
27	277.04	279.78	284.30	287.36	290.00	292.94	302.77	321.12	334.43	331.80	315.90	295.86
28	277.10	279.91	284.41	287.45	290.07	293.20	303.21	321.38	334.53	331.32	315.34	295.71
29	277.17	280.04	284.56	287.51	---	293.51	303.70	321.70	334.70	330.88	314.74	295.80
30	277.29	280.14	284.66	287.61	---	293.86	304.24	322.00	334.75	330.43	314.17	295.91
31	277.36	---	284.72	287.70	---	294.25	---	322.27	---	329.92	313.59	---
MAX	277.36	280.14	284.72	287.70	290.07	294.25	304.24	322.27	334.75	335.12	329.43	313.01
MIN	275.06	277.46	280.30	284.78	287.79	290.15	294.71	304.82	322.54	329.92	313.59	295.71

NOTE.--Add 5,000 ft to obtain elevation.

13236500 DEADWOOD RIVER BELOW DEADWOOD RESERVOIR, NEAR LOWMAN, ID

LOCATION.--Lat 44°17'30", long 115°38'33", in SE¼NE¼ sec.17, T.11 N., R.7 E., Valley County, Hydrologic Unit 17050120, Boise National Forest, on right bank 300 ft (91 m) upstream from Wilson Creek, 0.2 mi (0.3 km) downstream from Deadwood Dam, 15 mi (24 km) north of Lowman, and at mile 23.4 (37.7 km).

DRAINAGE AREA.--112 mi² (290 km²). Mean altitude, 6,630 ft (2,020 m).

PERIOD OF RECORD.--October 1926 to current year. Monthly discharge only prior to May 1927, published in WSP 1317. Published as "at Beaver Creek ranger station, near Lowman" prior to October 1934.

REVISED RECORDS.--WSP 1123: 1943. WSP 1517: 1956. WSP 1567: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,180.52 ft (1,579.022 m) above mean sea level (levels by Bureau of Reclamation). National Geodetic Vertical Datum of 1929 is 29.19 ft (8.897 m) higher. Prior to June 22, 1935, at site 600 ft (183 m) upstream at datum 5.85 ft (1.783 m) higher and Oct. 1, 1935, to Aug. 3, 1955, at present site at datum 1.00 ft (0.305 m) higher. June 22 to Sept. 30, 1935, nonrecording gage at site 20 ft (6 m) upstream at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records good except those below 5.0 ft³/s (0.14 m³/s), which are fair. Flow regulated by Deadwood Reservoir (see sta 13236000).

AVERAGE DISCHARGE.--52 years, 234 ft³/s (6.63 m³/s), 169,500 acre-ft/yr (209 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,580 ft³/s (73.1 m³/s) July 14, 1953, maximum gage height, 8.93 ft (2.722 m) June 7, 1956; no flow or small amount of leakage from reservoir for long periods in 1934-37, when gates in dam were closed.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,060 ft³/s (30.0 m³/s) Sept. 19, gage height, 6.41 ft (1.954 m); minimum, 1.6 ft³/s (0.045 m³/s) Sept. 29, gage height, 1.00 ft (0.305 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 26 to Aug. 16)

1.0	2.1	2.5	110
1.1	3.4	3.0	171
1.2	5.8	4.0	327
1.5	19	5.0	573
2.0	57	6.2	978

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	3.3	3.3	3.2	3.4	3.8	4.5	13	448	739	885	835
2	3.1	3.3	3.3	3.2	3.4	3.8	4.5	14	448	769	885	835
3	3.1	3.3	3.3	3.2	3.4	3.8	4.5	14	448	762	885	831
4	2.8	3.4	3.3	3.2	3.4	3.8	4.2	13	451	742	885	828
5	3.1	3.5	3.3	3.2	3.4	3.8	4.2	12	451	594	882	824
6	3.1	3.4	3.1	3.2	3.4	3.8	4.2	12	451	492	882	824
7	3.1	3.4	3.1	3.2	3.4	3.8	4.2	12	451	426	882	821
8	3.1	3.4	3.1	3.2	3.4	3.8	4.2	12	451	428	882	817
9	3.1	3.4	3.1	3.2	3.5	3.8	4.2	13	451	468	878	817
10	3.1	3.4	3.1	3.2	3.5	3.8	4.2	17	451	497	874	814
11	3.1	3.4	3.1	3.2	3.5	3.8	4.5	18	453	508	874	810
12	3.3	3.4	3.1	3.3	3.5	3.8	4.5	17	453	500	871	807
13	3.3	3.4	3.1	3.3	3.5	3.8	4.5	17	453	476	871	807
14	3.3	3.3	3.5	3.3	3.5	3.8	4.5	18	450	456	874	803
15	3.3	3.4	5.1	3.3	3.5	3.8	4.5	22	448	431	874	803
16	3.3	3.3	3.9	3.3	3.5	3.8	4.7	23	411	411	874	800
17	3.3	3.3	3.4	3.3	3.5	3.8	4.7	23	390	385	871	796
18	3.3	3.3	3.4	3.3	3.6	3.8	4.7	23	392	392	871	793
19	3.3	3.3	3.2	3.3	3.6	3.8	4.7	22	397	539	867	882
20	3.3	3.3	3.1	3.3	3.6	3.8	4.7	22	395	667	867	963
21	3.3	3.3	3.1	3.3	3.6	3.8	4.7	23	399	860	863	963
22	3.3	3.3	3.1	3.3	3.6	3.8	4.7	26	404	849	860	959
23	3.3	3.3	3.1	3.3	3.8	3.8	4.7	58	404	871	860	955
24	3.3	3.3	3.1	3.3	3.8	4.0	4.7	167	404	874	853	952
25	3.3	3.3	3.1	3.3	3.8	4.0	4.7	295	426	874	849	948
26	3.3	3.5	3.1	3.4	3.8	4.0	5.2	423	487	874	845	828
27	3.3	3.3	3.1	3.4	3.8	4.0	7.1	443	542	874	845	550
28	3.3	3.3	3.1	3.4	3.8	4.2	8.9	446	588	878	842	212
29	3.3	3.3	3.2	3.4	---	4.2	11	446	636	878	842	2.2
30	3.4	3.3	3.2	3.4	---	4.2	12	448	683	874	838	2.7
31	3.4	---	3.2	3.4	---	4.2	---	448	---	878	838	---
TOTAL	100.0	100.4	101.3	101.8	99.5	120.2	156.6	3560	13716	20266	26869	22881.9
MEAN	3.23	3.35	3.27	3.28	3.55	3.88	5.22	115	457	654	867	763
MAX	3.4	3.5	5.1	3.4	3.8	4.2	12	448	683	878	885	963
MIN	2.8	3.3	3.1	3.2	3.4	3.8	4.2	12	390	385	838	2.2
AC-FT	198	199	201	202	197	238	311	7060	27210	40200	53290	45390

CAL YR 1977 TOTAL 46112.7 MEAN 126 MAX 484 MIN 2.8 AC-FT 91460
WTR YR 1978 TOTAL 88072.7 MEAN 241 MAX 963 MIN 2.2 AC-FT 174700

13238500 PAYETTE LAKE AT MCCALL, ID

LOCATION.--Lat 44°54'50", long 116°07'10", in NW¼ sec.8, T.18 N., R.3 E., Valley County, Hydrologic Unit 17050123, at outlet of lake on North Fork Payette River at McCall and at mile 75.4 (121.3 km).

DRAINAGE AREA.--144 mi² (373 km²).

PERIOD OF RECORD.--August 1921 to current year (fragmentary prior to Nov. 23, 1943). Prior to October 1942, published as "at Lardo".

REVISED RECORDS.--WSP 753: 1931. WSP 1013: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,982.73 ft (1,518.74 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 26, 1931, nonrecording gage at site 25 ft (8 m) downstream at datum 2.0 ft (0.61 m) higher. Aug. 26, 1931, to Nov. 22, 1943, nonrecording gage at site 75 ft (23 m) downstream at present datum.

REMARKS.--Flow from Payette Lake is regulated within natural range by taintor gates and removable stoplogs of a buttress and slab-type dam completed in November 1943. During period 1923-43 lake was regulated by structure consisting of a series of concrete-filled cribs supporting removable flashboards. Some regulation is reported to have been affected by timber flashboards for several years prior to 1923. Lake area is approximately 5,000 acres (2,020 hm²). No capacity table has been developed. Water is used for irrigation in vicinity of Emmett. No diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height observed, 8.75 ft (2.667 m) July 13, 1935; minimum observed, 0.95 ft (0.290 m) Oct. 3, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 7.06 ft (2.152 m) July 5, 25; minimum, 1.87 ft (0.570 m) Oct. 25.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.24	2.09	2.34	3.32	3.10	2.79	3.01	3.41	4.13	6.36	6.87	4.22
2	2.25	2.09	2.49	3.29	3.11	2.70	3.14	3.51	4.32	6.40	6.80	4.14
3	2.24	2.09	2.49	3.33	3.11	2.62	3.14	3.61	4.64	6.72	6.68	4.07
4	2.22	2.08	2.48	3.32	3.10	2.54	3.12	3.64	4.98	7.05	6.55	3.97
5	2.20	2.12	2.46	3.34	3.11	2.48	3.11	3.55	5.33	6.98	6.43	3.93
6	2.16	2.12	2.47	3.33	3.12	2.41	3.09	3.49	5.61	6.82	6.32	3.90
7	2.16	2.11	2.52	3.31	3.17	2.35	3.02	3.43	5.77	6.71	6.19	3.89
8	2.14	2.10	2.54	3.31	3.15	2.32	2.96	3.40	5.85	6.74	6.07	3.87
9	2.12	2.09	2.60	3.29	3.17	2.29	2.91	3.51	5.87	6.73	5.95	3.82
10	2.10	2.07	2.64	3.30	3.15	2.25	2.87	3.87	5.81	6.77	5.89	3.83
11	2.08	2.06	2.74	3.26	3.14	2.22	2.88	4.08	5.51	6.81	5.80	3.81
12	2.06	2.06	2.77	3.27	3.12	2.20	2.88	4.06	5.22	6.81	5.71	3.77
13	2.04	2.07	2.91	3.24	3.10	2.17	2.87	4.00	5.17	6.84	5.72	3.73
14	2.03	2.08	3.10	3.22	3.09	2.14	2.86	4.16	5.20	6.88	5.66	3.68
15	2.01	2.10	3.36	3.23	3.08	2.11	2.85	4.51	5.13	6.91	5.60	3.62
16	2.00	2.10	3.44	3.24	3.07	2.09	2.90	4.53	4.96	6.92	5.54	3.56
17	1.99	2.08	3.49	3.25	3.06	2.07	2.87	4.38	4.82	6.90	5.48	3.50
18	1.98	2.08	3.49	3.23	3.06	2.06	2.83	4.25	4.77	6.90	5.40	3.43
19	1.95	2.06	3.49	3.22	3.02	2.05	2.80	4.21	4.71	6.92	5.32	3.38
20	1.94	2.03	3.47	3.20	3.02	2.05	2.84	4.29	4.71	6.90	5.24	3.38
21	1.93	2.02	3.45	3.19	3.00	2.06	2.84	4.47	4.84	6.92	5.16	3.39
22	1.91	2.04	3.45	3.18	3.00	2.08	2.83	4.70	5.02	6.96	5.09	3.40
23	1.90	2.04	3.49	3.17	2.99	2.14	2.80	4.73	5.21	7.01	5.00	3.41
24	1.89	2.05	3.48	3.14	3.00	2.18	2.77	4.54	5.33	7.04	4.93	3.43
25	1.90	2.11	3.46	3.14	2.97	2.20	2.76	4.36	5.37	7.04	4.83	3.44
26	1.98	2.16	3.43	3.14	2.94	2.23	2.90	4.14	5.27	7.01	4.74	3.45
27	2.01	2.25	3.40	3.12	2.93	2.27	3.09	3.97	5.37	6.99	4.66	3.44
28	2.02	2.29	3.37	3.13	2.87	2.36	3.17	3.96	5.67	6.99	4.57	3.45
29	2.04	2.32	3.36	3.12	---	2.47	3.24	4.13	5.98	6.97	4.49	3.46
30	2.07	2.33	3.36	3.10	---	2.62	3.31	4.15	6.24	6.94	4.38	3.46
31	2.08	---	3.35	3.09	---	2.79	---	4.10	---	6.91	4.30	---
MAX	2.25	2.33	3.49	3.34	3.17	2.79	3.31	4.73	6.24	7.05	6.87	4.22
MIN	1.89	2.02	2.34	3.09	2.87	2.05	2.76	3.40	4.13	6.36	4.30	3.38

WTR YR 1978 MAX 7.05 MIN 1.89

13239000 NORTH FORK PAYETTE RIVER AT MCCALL, ID

LOCATION.--Lat 44°54'30", long 116°07'10", in SW¼ sec.8, T.18 N., R.3 E., Valley County, Hydrologic Unit 17050123, on left bank at McCall, 0.2 mi (0.3 km) downstream from outlet of Payette Lake, and at mile 75.2 (121 km).

DRAINAGE AREA.--144 mi² (373 km²). Mean altitude, 6,520 ft (1,987 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1908 to June 1917, May 1919 to current year. Prior to October 1942, published as "at Lardo."

REVISED RECORDS.--WSP 963: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,970 ft (1,515 m), by barometer. Nonrecording gage at site 1 mi (1.6 km) downstream at different datum prior to Oct. 14, 1908, and Oct. 14, 1908, to Dec. 18, 1923, at sites near present gage at present datum.

REMARKS.--Records good. Flow regulated to some extent since several years prior to 1923 by gates at outlet of Payette Lake 0.2 mi (0.3 km) upstream (see sta 13238500) and several smaller lakes upstream. Diversion for fish hatchery bypasses station and is returned below gage. Records of daily discharge of this diversion published in annual water-supply papers from October 1942 to February 1953.

AVERAGE DISCHARGE.--67 years (1909-16, 1920-78), 367 ft³/s (10.4 m³/s), 265,900 acre-ft/yr (328 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,950 ft³/s (140 m³/s) June 19, 1974; maximum gage height, 8.16 ft (2.487 m) June 19, 1974; no flow Nov. 5-8, 1931, Nov. 17-24, 1933, Nov. 14-27, 1935, Oct. 22 to Nov. 11, 1938.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,840 ft³/s (80.4 m³/s) June 9, gage height, 6.24 ft (1.902 m); minimum, 12 ft³/s (0.340 m³/s) Dec. 6, gage height, 1.42 ft (0.433 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

1.4	10	3.0	299
1.7	27	3.5	550
2.0	53	4.0	860
2.3	93	5.0	1,620
2.6	161	6.3	2,850

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	180	126	184	199	133	249	510	760	1250	1100	150	258
2	185	128	202	190	137	352	600	820	1340	1110	251	255
3	185	126	212	193	140	352	635	901	1560	1160	352	251
4	180	124	212	199	137	338	625	941	1850	1390	366	247
5	170	128	209	202	135	316	600	921	2150	1870	366	243
6	165	133	135	202	142	290	600	867	2450	1820	361	240
7	165	130	14	196	145	258	590	812	2650	1460	357	240
8	160	128	18	193	152	240	560	780	2760	961	347	240
9	155	126	25	190	158	229	510	805	2810	832	343	236
10	150	121	32	190	155	212	490	954	2790	779	338	233
11	140	119	44	190	150	199	480	1190	2600	740	334	233
12	140	117	56	187	147	193	480	1240	2300	715	334	233
13	135	117	75	176	142	181	470	1190	2130	568	329	229
14	130	119	103	172	135	172	460	1230	2150	481	329	229
15	130	124	178	172	133	163	460	1460	2130	481	325	226
16	125	126	222	172	130	155	440	1620	2020	487	325	222
17	120	121	243	170	126	147	490	1540	1880	481	320	219
18	120	119	255	175	121	142	450	1430	1820	385	316	219
19	115	113	255	169	119	140	430	1360	1750	299	316	190
20	110	109	251	166	117	140	420	1380	1740	258	311	50
21	105	107	243	161	115	142	450	1470	1510	175	307	48
22	100	109	240	161	113	147	450	1680	1340	105	307	48
23	100	109	247	155	111	161	430	1780	1460	81	303	50
24	95	115	251	150	163	184	390	1690	1560	87	299	50
25	90	126	243	145	215	193	380	1350	1620	155	294	48
26	100	137	236	147	205	196	430	1380	1570	219	290	48
27	115	152	229	145	202	212	550	1220	1380	205	286	48
28	120	169	215	142	233	240	631	1150	1090	178	282	48
29	120	178	212	142	---	290	672	1220	996	161	274	45
30	121	181	212	137	---	330	715	1300	1060	158	270	45
31	126	---	209	135	---	405	---	1270	---	155	266	---
TOTAL	4152	3837	5462	5333	4111	7018	15454	37929	55706	19056	9648	4969
MEAN	134	128	176	172	147	226	515	1224	1857	615	311	166
MAX	185	181	255	202	233	405	715	1780	2810	1870	366	258
MIN	90	107	14	135	111	140	380	760	996	81	150	45
AC-FT	8240	7610	10830	10580	8150	13920	30650	75230	110500	37800	19140	9860

CAL YR 1977 TOTAL 50244.0 MEAN 138 MAX 731 MIN 3.6 AC-FT 99660
WTR YR 1978 TOTAL 172675.0 MEAN 473 MAX 2810 MIN 14 AC-FT 342500

NOTE.--No gage-height record Oct. 1-29, Mar. 29 to Apr. 26.

13239000 NORTH FORK PAYETTE RIVER AT MCCALL, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

REMARKS.--Miscellaneous samples of chemical data published for water year 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT 29...	1445	117	19	--	3.5	9.5	--	--	--
DEC 13...	1455	83	--	--	4.5	3.5	--	--	--
FEB 01...	1030	135	20	--	-10.0	1.5	--	--	--
MAR 22...	1345	147	15	--	12.5	4.5	--	--	--
APR 26...	0815	425	20	--	6.5	6.0	--	--	--
JUN 08...	1230	2840	19	--	25.0	12.5	--	--	--
JUL 18...	1500	284	28	8.8	22.0	18.0	10	0	3.6
SEP 13...	0940	232	16	7.5	6.5	15.0	5	0	2.0

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT 29...	--	--	--	--	--	--	--	--	--
DEC 13...	--	--	--	--	--	--	--	--	--
FEB 01...	--	--	--	--	--	--	--	--	--
MAR 22...	--	--	--	--	--	--	--	--	--
APR 26...	--	--	--	--	--	--	--	--	--
JUN 08...	--	--	--	--	--	--	--	--	--
JUL 18...	.2	1.0	18	.1	.3	13	0	11	1.4
SEP 13...	.1	1.1	29	.2	.4	10	0	8	1.6

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 29...	--	--	--	--	--	--	--	--
DEC 13...	--	--	--	--	--	--	--	--
FEB 01...	--	--	--	--	--	--	--	--
MAR 22...	--	--	--	--	--	--	--	--
APR 26...	--	--	--	--	--	--	--	--
JUN 08...	--	--	--	--	--	--	--	--
JUL 18...	.4	.0	6.3	20	.03	15.3	.01	.00
SEP 13...	.2	.0	5.6	16	.02	10.0	.00	.00

13240000 LAKE FORK PAYETTE RIVER ABOVE JUMBO CREEK, NEAR MCCALL, ID

LOCATION.--Lat 44°54'50", long 115°59'10", in NE¼ sec.8, T.18 N., R.4 E., Valley County, Hydrologic Unit 17040123, on left bank 100 ft (30.5 m) upstream from abandoned powerplant, 0.2 mi (0.3 km) upstream from Jumbo Creek, 3.5 mi (5.6 km) upstream from Lake Fork Reservoir dam, 5.5 mi (8.8 km) east of McCall, and at mile 21.0 (33.8 km).

DRAINAGE AREA.--48.9 mi² (127 km²). Mean altitude, 6,950 ft (2,118.4 m).

PERIOD OF RECORD.--October 1945 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,140 ft (1,567 m), from topographic map. Prior to Nov. 10, 1945, nonrecording gage at site 200 ft (61 m) downstream at different datum.

REMARKS.--Records good except those for January, which are fair. No diversion above station. Flow regulated by Cruzen Reservoir, capacity 1,230 acre-ft (1.52 hm³).

AVERAGE DISCHARGE.--33 years, 148 ft³/s (4.19 m³/s), 41.10 in/yr (1,044 mm/yr), 107,200 acre-ft/yr (132 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,770 ft³/s (78.4 m³/s) June 26, 1971, gage height, 9.15 ft (2.709 m), from rating curve extended above 1,200 ft³/s (34.0 m³/s); minimum, 1.2 ft³/s (34 dm³/s) Dec. 3, 1967; minimum gage height, 1.05 ft (0.320 m) part of each day Nov. 8-9, 1969.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,390 ft³/s (39.4 m³/s) June 5, gage height, 7.83 ft (2.387 m); minimum, 3.4 ft³/s (0.096 m³/s) Oct. 25, gage height, 1.57 ft (0.479 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 19-23, Dec. 19-22, 26-29, Jan. 1-18, 24, 25, 30, Feb. 16)

2.4	15	5.0	204
2.7	25	5.5	287
3.0	40	6.0	415
3.5	67	7.0	845
4.0	100	8.0	1,520
4.5	144		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	101	55	81	43	42	36	388	295	464	710	85	31
2	82	57	94	46	41	33	312	352	605	605	79	29
3	72	54	120	52	42	37	238	370	770	912	75	28
4	65	55	102	58	41	38	204	345	889	755	69	27
5	62	59	86	64	42	37	180	287	1050	715	67	28
6	55	62	82	60	43	37	169	253	1170	636	64	35
7	58	58	78	58	42	37	161	246	1130	725	62	47
8	58	50	71	57	42	38	148	243	1100	654	57	70
9	55	49	72	56	41	45	146	287	1100	601	54	63
10	52	53	72	56	40	44	150	569	1000	581	52	61
11	49	50	71	56	40	42	172	581	765	493	50	74
12	47	50	70	54	37	42	175	422	659	429	46	66
13	46	50	69	52	39	40	166	379	745	382	51	61
14	44	50	180	52	38	40	163	561	825	367	65	66
15	42	53	319	52	38	37	165	850	760	358	58	79
16	40	57	185	52	37	39	186	659	668	340	65	89
17	39	47	140	52	41	42	171	485	659	287	70	86
18	37	46	121	50	40	45	152	415	715	249	63	83
19	36	36	94	48	38	49	150	415	700	225	56	79
20	34	39	72	47	38	54	164	489	760	109	51	75
21	33	44	72	46	38	62	155	632	775	28	47	72
22	32	45	86	46	37	71	145	785	790	48	46	67
23	31	47	90	40	36	86	137	720	835	125	51	65
24	34	47	87	38	37	94	134	549	825	143	47	59
25	16	50	83	42	38	88	149	436	840	136	43	54
26	77	158	72	46	37	95	198	367	650	128	40	48
27	68	134	56	45	37	117	318	332	659	119	38	42
28	58	101	56	44	36	157	289	373	775	114	37	39
29	58	91	70	43	---	204	275	537	800	110	35	35
30	58	84	71	42	---	279	279	501	800	101	33	32
31	57	---	68	43	---	312	---	415	---	92	32	---
TOTAL	1596	1831	2990	1540	1098	2377	5839	14150	24283	11277	1688	1690
MEAN	51.5	61.0	96.5	49.7	39.2	76.7	195	456	809	364	54.5	56.3
MAX	101	158	319	64	43	312	388	850	1170	912	85	89
MIN	16	36	56	38	36	33	134	243	464	28	32	27
CFSM	1.05	1.25	1.97	1.02	.80	1.57	3.99	9.33	16.5	7.44	1.12	1.15
IN.	1.21	1.39	2.27	1.17	.84	1.81	4.44	10.76	18.47	8.58	1.28	1.29
AC-FT	3170	3630	5930	3050	2180	4710	11580	28070	48170	22370	3350	3350

CAL YR 1977 TOTAL 22650.2 MEAN 62.1 MAX 370 MIN 8.7 CFSM 1.27 IN 17.23 AC-FT 44930
WTR YR 1978 TOTAL 70359.0 MEAN 193 MAX 1170 MIN 16 CFSM 3.95 IN 53.52 AC-FT 139600

13244500 CASCADE RESERVOIR AT CASCADE, ID

LOCATION.--Lat 44°31'30", long 116°03'00", in NE¼NE¼ sec.26, T.14 N., R.3 E., Valley County, Hydrologic Unit 17050123, in gate-control structure at south end of Cascade Dam on North Fork Payette River, 0.5 mi (0.8 km) downstream from Willow Creek, 0.8 mi (1.3 km) northwest of Cascade, and at mile 40.2 (64.7 km).

DRAINAGE AREA.--620 mi^2 (1,600 km^2). Mean altitude, 5,960 ft (1,817 m).

PERIOD OF RECORD.--January to December 1948 (fragmentary), January 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Bureau of Reclamation). National Geodetic Vertical datum of 1929 is 0.66 ft (0.201 m) lower. Prior to Nov. 7, 1958, nonrecording gage at north end of dam at present datum.

REMARKS.--Reservoir is formed by earth-fill dam completed in May 1949. Partial storage began Nov. 7, 1947. Full storage first reached in June 1957. Capacity, 703,200 acre-ft (867 hm^3) between elevations 4,766 ft (1,452.7 m), 4.0 ft (1.22 m) above sill of outlet tunnel and 4,828 ft (1,471.6 m), top of spillway gates. Figures given herein represent contents above elevation 4,766 ft (1,452.7 m). The Bureau of Reclamation attempts to limit withdrawal to elevation 4,787.5 ft (1,459.23 m), retaining 50,000 acre-ft (61.6 hm^3) capacity as dead storage. Contents table computed from tables furnished by Bureau of Reclamation (revised 1950). Water is used for irrigation of lands in the Payette Division of the Boise Project and for power at Black Canyon powerplant near Emmett.

COOPERATION.--Capacity table furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 727,000 acre-ft (896 hm^3) June 10, 11, 1957, elevation, 4,828.89 ft (1,471.846 m); no contents at times during March and September 1948 (prior to filling of reservoir); minimum after first filling of reservoir in June 1957, 193,000 acre-ft (238 hm^3) Feb. 8, 1962, elevation, 4,802.15 ft (1,463.695 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 706,400 acre-ft (871 hm^3) July 7, elevation, 4,828.12 ft (1,471.611 m); minimum, 216,700 acre-ft (267 hm^3) Oct. 1, elevation, 4,803.85 ft (1,464.213 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

4,803.0	204,600	4,820.0	508,500
4,805.0	233,500	4,825.0	626,000
4,810.0	313,500	4,829.0	730,000
4,815.0	404,900		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	217100	227900	247000	299100	324400	334400	373100	477100	601800	697100	682900	609400
2	217700	229100	250400	299700	324700	334700	377800	480700	604500	699000	681400	606700
3	218300	229400	252400	300700	325800	335300	381760	484300	608400	701100	679600	603500
4	218600	229800	253900	301600	326100	336100	386100	488200	612900	702900	678500	600600
5	219000	230700	254200	303300	326500	337600	389600	491000	617600	704500	675700	598200
6	219300	230800	255800	304500	327200	338100	393600	493600	623800	705300	673100	597200
7	220000	231600	256400	305800	328800	338400	397300	496000	630000	705800	670500	596000
8	220300	231600	256400	306200	328900	339500	400400	498600	638100	705600	667900	595000
9	220700	231900	256900	308000	329800	340200	403900	501700	644400	704300	665300	594300
10	220900	232000	257200	309200	330300	340900	407600	506100	651500	702900	663000	593300
11	221000	232200	258700	310200	330700	341600	412000	511400	657600	702700	661000	592400
12	221500	233100	260000	311300	331000	342300	415900	516500	662000	702400	659200	591900
13	221800	233400	263300	312300	331000	342700	419900	520900	666100	702400	657600	591400
14	222000	233600	270700	313300	331200	343100	424500	525200	668400	702100	655100	590900
15	222500	234800	276800	314400	331700	343400	428000	530900	670500	701900	653500	589700
16	222800	235300	279400	316100	331700	343800	434500	537000	672300	701100	651800	589210
17	222900	235400	283300	317300	331700	344100	437900	542500	673100	700800	649500	588500
18	223200	235600	283000	318300	331700	344500	441100	546800	674900	700300	647200	587800
19	223500	235900	284100	319200	331900	345000	444200	551200	675700	699700	644900	586100
20	223800	235600	285000	320100	332300	345400	447200	555600	677000	699000	643100	584900
21	223900	235900	285800	321100	332300	346300	449300	560500	678800	697900	640300	583900
22	224100	237100	287100	322300	332300	346800	451500	566300	680100	697100	638100	583200
23	224400	237200	289200	322500	332400	348100	453400	572900	681100	696100	635500	582500
24	224100	238400	290900	322500	332600	349500	455000	578600	684000	695000	633000	581500
25	225100	240500	292100	322700	333100	350900	456900	583000	687600	693900	630500	580600
26	225500	242200	293400	323000	333500	352700	460600	586300	690500	692400	627800	579600
27	225700	243200	294400	323200	333900	354700	464600	589700	692400	691600	624300	577700
28	225700	244000	295000	323300	334000	357200	468400	592100	693400	690300	621300	575600
29	225700	245300	296200	323900	---	360200	470900	594300	694500	689700	618100	572700
30	226900	246000	297400	323900	---	364000	474300	597200	695800	687100	615600	569900
31	227600	---	298700	324000	---	367900	---	599200	---	685000	612400	---
MAX	227600	246000	298700	324000	334000	367900	474300	599200	695800	705800	682900	609400
MIN	217100	227900	247000	299100	324400	334400	373100	477100	601800	685000	612400	569900
(†)	4804.60	4805.83	4809.13	4810.61	4811.18	4813.06	4818.42	4823.91	4827.72	4827.31	4824.45	4822.69
(‡)	+10900	+18400	+52700	+25300	+10000	+33900	+106400	+124900	+96600	-10800	-72600	-42500

CAL YR 1977.......... ‡ -152800
WTR YR 1978.......... ‡ +353200

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

13245000 NORTH FORK PAYETTE RIVER AT CASCADE, ID

LOCATION.--Lat 44°30'44", long 116°01'52". in NE¼NE¼ sec.36, T.14 N., R.3 E., Valley County, Hydrologic Unit 17050123, 0.5 mi (0.8 km) upstream from Beaver Creek, 1.6 mi (2.6 km) downstream from Cascade Dam, and at mile 38.6 (62.1 km).

DRAINAGE AREA.--626 mi² (1,621 km²). Mean altitude, 5,960 ft (1,820 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1941 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,730 ft (1,442 m), from topographic map. Prior to Jan. 28, 1947, nonrecording gages at present or nearby sites at present datum. Nov. 6, 1958, to Sept. 30, 1965, water-stage recorder at site 1.5 mi (2.4 km) upstream at datum 4,734.59 ft (1,443.103 m) above mean sea level (used as supplementary gage Oct. 1, 1965, to current year). Nov. 6, 1958, to Sept. 30, 1965, present gage used as supplementary gage.

REMARKS.--Records good. Flow regulated by Payette Lake (see sta 13238500), Lake Fork Reservoir, and Cascade Reservoir 1.6 mi (2.6 km) upstream, beginning November 1947 (see sta 13244500). Diversions above station for irrigation of about 39,000 acres or 16,000 hm² (1966 determination).

AVERAGE DISCHARGE.--37 years, 1,038 ft³/s (29.40 m³/s), 752,000 acre-ft/yr (927 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,320 ft³/s (207 m³/s) May 10, 1947, gage height, 6.29 ft (1.917 m); no flow for part of Oct. 14, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,940 ft³/s (83.3 m³/s) July 9, gage height, 3.23 ft (0.985 m); minimum, 110 ft³/s (3.12 m³/s) Oct. 9, gage height, 0.63 ft (0.192 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Dec. 2, 3, 8, 9, 14-20, Jan. 1, 2)

0.6	101	1.7	736
0.8	165	2.0	1,110
1.1	286	2.5	1,800
1.4	457	3.3	3,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	134	130	129	130	384	405	439	814	1510	2080	1330	1900
2	132	128	130	130	385	405	420	826	1510	2080	1310	1900
3	129	127	132	133	390	405	420	814	1510	2190	1310	1890
4	129	127	135	129	389	405	426	814	1510	2300	1340	1890
5	131	128	131	129	391	405	426	814	1840	2570	1430	1890
6	128	127	131	127	386	405	420	814	2080	2920	1520	1860
7	119	127	131	126	390	405	420	814	2090	2920	1530	1690
8	121	127	130	126	390	410	414	814	2080	2920	1570	1460
9	121	127	130	125	390	410	414	814	2220	2920	1570	1290
10	121	127	127	127	390	410	414	814	2470	2550	1570	1200
11	124	127	129	127	390	410	414	758	2490	1930	1570	1040
12	128	127	130	127	395	410	433	826	2470	1720	1570	861
13	127	128	131	127	395	410	414	814	2470	1460	1590	861
14	128	128	130	127	395	410	400	805	2590	1370	1590	850
15	128	128	130	127	395	410	400	805	2860	1370	1570	850
16	128	127	130	128	400	415	400	870	2870	1370	1570	850
17	127	127	130	128	400	415	540	1000	2870	1200	1570	850
18	129	127	130	127	400	415	540	1000	2870	1050	1560	940
19	131	127	130	131	400	415	540	1000	2890	999	1560	907
20	131	127	130	131	400	415	540	1000	2750	973	1600	801
21	131	128	130	131	400	415	540	1010	2410	838	1730	802
22	130	128	127	131	400	415	700	1020	2460	838	1770	801
23	130	127	129	262	400	415	700	1020	2350	838	1820	798
24	131	128	127	365	400	426	700	1130	2070	838	1820	781
25	131	129	128	365	400	433	700	1520	2070	874	1820	780
26	151	133	127	367	400	439	850	1510	2070	999	1840	959
27	188	131	128	371	400	439	838	1500	2070	1090	1930	1300
28	187	129	129	371	400	445	838	1500	2070	1090	1920	1670
29	164	130	127	371	---	445	838	1500	2070	1090	1920	1770
30	132	130	127	374	---	458	826	1500	2080	1080	1920	1760
31	131	---	129	383	---	439	---	1520	---	1170	1900	---
TOTAL	4152	3841	4014	6053	11055	12959	16364	31760	67660	49637	50620	37201
MEAN	134	128	129	195	395	418	545	1025	2255	1601	1633	1240
MAX	188	133	135	383	400	458	850	1520	2890	2920	1930	1900
MIN	119	127	127	125	384	405	400	758	1510	838	1310	780
AC-FT	8240	7620	7960	12010	21930	25700	32460	63000	134200	98450	100400	73790

CAL YR 1977 TOTAL 220597 MEAN 604 MAX 1530 MIN 110 AC-FT 437600
WTR YR 1978 TOTAL 295316 MEAN 809 MAX 2920 MIN 119 AC-FT 585800

NOTE.--No gage-height record Feb. 7 to Mar. 23.

13245000 NORTH FORK PAYETTE RIVER AT CASCADE, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

REMARKS.--Miscellaneous chemical data published for water year 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT 27...	1405	184	38	--	12.0	10.5	--	--	--
DEC 12...	1515	121	47	--	5.0	1.5	--	--	--
JAN 31...	1105	392	40	--	-3.5	1.0	--	--	--
MAR 23...	1220	405	52	--	7.0	3.5	--	--	--
APR 26...	1315	851	50	--	12.5	9.5	--	--	--
JUN 05...	2030	2130	41	--	22.0	14.0	--	--	--
JUL 20...	1200	851	36	7.0	21.0	19.0	12	0	3.6
SEP 15...	1055	828	35	7.5	15.5	15.0	12	0	4.0

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT 27...	--	--	--	--	--	--	--	--	--
DEC 12...	--	--	--	--	--	--	--	--	--
JAN 31...	--	--	--	--	--	--	--	--	--
MAR 23...	--	--	--	--	--	--	--	--	--
APR 26...	--	--	--	--	--	--	--	--	--
JUN 05...	--	--	--	--	--	--	--	--	--
JUL 20...	.8	2.6	30	.3	.6	15	0	12	1.9
SEP 15...	.5	2.5	24	.3	.8	20	0	16	1.7

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 27...	--	--	--	--	--	--	--	--
DEC 12...	--	--	--	--	--	--	--	--
JAN 31...	--	--	--	--	--	--	--	--
MAR 23...	--	--	--	--	--	--	--	--
APR 26...	--	--	--	--	--	--	--	--
JUN 05...	--	--	--	--	--	--	--	--
JUL 20...	.8	.1	7.5	26	.04	59.7	.01	.02
SEP 15...	.6	.1	7.1	27	.04	60.4	.00	.01

13246000 NORTH FORK PAYETTE RIVER NEAR BANKS, ID

LOCATION.--Lat 44°06'50", long 116°06'25", in NW¼SE¼ sec.16, T.9 N., R.3 E., Boise County, Hydrologic Unit 17050123, Boise National Forest, on right bank 40 ft (12 m) downstream from highway bridge, 2.5 mi (4.0 km) north of Banks, and at mile 2.8 (4.5 km).

DRAINAGE AREA.--933 mi^2 (2,420 km^2). Mean altitude, 5,800 ft (1,770 m).

PERIOD OF RECORD.--April 1947 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,081.13 ft (939.128 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow regulated by Payette Lake (see sta 13238500), Lake Fork Reservoir (see sta 13241000), and Cascade Reservoir 37.1 mi (59.7 km) upstream, beginning November 1947 (see sta 13244500). Diversions above station for irrigation of about 50,800 acres or 20,600 hm^2 (1966 determination).

AVERAGE DISCHARGE.--31 years, 1,362 ft^3/s (38.57 m^3/s), 986,800 acre-ft/yr (1,217 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,830 ft^3/s (250 m^3/s) May 11, 1947, gage height, about 13.5 ft (4.11 m), estimated on basis of records for station near Smiths Ferry; minimum recorded, 36 ft^3/s (1.02 m^3/s) Dec. 21, 1947, gage height, 3.01 ft (0.917 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,810 ft^3/s (108 m^3/s) Dec. 15, gage height, 9.58 ft (2.920 m); minimum, 142 ft^3/s (4.02 m^3/s) Nov. 23, gage height, 3.50 ft (1.067 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

3.5	142	7.0	1,560
4.0	242	8.0	2,310
4.5	368	9.0	3,210
5.0	527	10.0	4,280
6.0	960		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	235	208	251	229	538	575	2370	1980	2310	2620	1290	1950
2	218	204	330	229	542	563	2180	2010	2320	2590	1340	1950
3	214	202	656	285	567	567	1750	1990	2350	2670	1330	1930
4	210	199	590	287	582	582	1580	1930	2400	2900	1340	1920
5	206	199	380	292	590	609	1450	1850	2490	2910	1410	1930
6	199	202	327	287	644	628	1390	1750	3000	3470	1510	2010
7	197	202	307	285	636	628	1440	1730	3130	3630	1550	2040
8	193	197	249	285	632	648	1330	1720	3140	3610	1590	1870
9	189	195	208	285	617	694	1380	1750	3170	3590	1610	1520
10	187	191	282	287	597	715	1410	1960	3580	3440	1620	1400
11	185	191	282	282	586	733	1440	2020	3590	2560	1610	1310
12	183	189	327	292	575	750	1330	1970	3480	2180	1600	1110
13	181	187	317	285	560	711	1280	1870	3410	1910	1690	1010
14	181	189	988	290	567	698	1270	1950	3380	1640	1760	998
15	179	206	3230	297	567	673	1280	2060	3720	1590	1690	988
16	179	223	1240	299	527	669	1660	2010	3750	1560	1700	972
17	177	210	741	312	545	677	1510	2050	3720	1520	1700	962
18	177	195	563	319	575	703	1270	2010	3730	1250	1670	967
19	175	187	446	309	563	741	1210	1990	3740	1200	1660	1120
20	175	183	327	304	560	810	1280	1980	3720	1110	1640	947
21	175	165	322	297	552	876	1710	2020	3230	993	1770	926
22	175	163	357	292	552	952	1620	2080	3180	983	1840	921
23	173	147	360	246	552	1090	1600	2070	3170	972	1930	916
24	173	185	335	322	563	1230	1560	2110	2810	957	1930	911
25	175	240	365	534	575	1260	1590	2630	2850	952	1920	906
26	177	322	354	567	586	1360	1810	2560	2710	1000	1920	916
27	202	371	335	517	586	1530	2270	2440	2650	1100	2010	1170
28	240	322	258	520	563	1690	2110	2440	2670	1140	2040	1560
29	242	299	304	552	---	1860	2020	2470	2660	1140	2010	1890
30	237	282	330	513	---	2120	1990	2410	2640	1130	1990	1910
31	216	---	299	534	---	2170	---	2340	---	1130	1970	---
TOTAL	6025	6455	15660	10634	16099	29512	48090	64150	92700	59447	52640	40930
MEAN	194	215	505	343	575	952	1603	2069	3090	1918	1698	1364
MAX	242	371	3230	567	644	2170	2370	2630	3750	3630	2040	2040
MIN	173	147	208	229	527	563	1210	1720	2310	952	1290	906
AC-FT	11950	12800	31060	21090	31930	58540	95390	127200	183900	117900	104400	81180

CAL YR 1977 TOTAL 250177 MEAN 685 MAX 3230 MIN 147 AC-FT 496200
WTR YR 1978 TOTAL 442342 MEAN 1212 MAX 3750 MIN 147 AC-FT 877400

13247500 PAYETTE RIVER NEAR HORSESHOE BEND, ID

LOCATION.--Lat 43°56'33", long 116°11'45", in NE¼SE¼ sec.15, T.7 N., R.2 E., Boise County, Hydrologic Unit 17050122, on left bank 0.5 mi (0.8 km) downstream from Porter Creek, 0.6 mi (1 km) upstream from concrete highway bridge on State Highway 55, 2 mi (3.2 km) north of Horseshoe Bend, and at mile 60.8 (97.8 km).

DRAINAGE AREA.--2,230 mi² (5,780 km²), approximately. Mean altitude, 5,850 ft (1,783.1 m).

PERIOD OF RECORD.--February 1906 to September 1916, July 1919 to current year. Monthly discharge only for some periods, published in WSP 1317.

REVISED RECORDS.--WSP 533: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,625.61 ft (800.286 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 23, 1912, nonrecording gage at site 1.8 mi (2.9 km) upstream at different datum. Nov. 23, 1912, to Apr. 16, 1953, water-stage recorder at site 1,000 ft (304.8 m) downstream at datum 2.1 ft (0.613 m) lower.

REMARKS.--Records good. Flow regulated by Deadwood Reservoir beginning November 1930 (see sta 13236000), and Cascade Reservoir 51.9 mi (83.5 km) upstream beginning November 1947 (see sta 132-4500), and other reservoirs upstream. Diversions above station for irrigation of about 55,100 acres or 22,300 hm² (1966 determination).

AVERAGE DISCHARGE.--69 years, 3,256 ft³/s (92.21 m³/s), 2,359,000 acre-ft/yr (2,909 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,000 ft³/s (764 m³/s) Dec. 23, 1964, gage height, 16.35 ft (4.983 m); minimum, 350 ft³/s (9.91 m³/s) Dec. 17, 1935, gage height, 0.26 ft (0.079 m), site and datum then in use, from rating curve extended below 600 ft³/s (17.0 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,600 ft³/s (32.9 m³/s) June 10, gage height, 11.17 ft (3.405 m); minimum daily, 660 ft³/s (18.7 m³/s) Oct. 22-23.

Rating table (gage height, in feet, and discharge, in cubic feet per second)

2.3	638	6.0	3,000
2.6	749	8.0	5,420
3.0	910	10.0	8,990
4.0	1,410	12.0	13,600
5.0	2,090		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	865	740	927	873	1260	1560	7520	6110	6560	7440	3460	3520
2	780	680	1110	692	1250	1540	6940	6430	6680	7280	3510	3490
3	722	720	2100	715	1440	1560	5740	6600	6960	7120	3450	3460
4	681	681	1890	765	1400	1600	5140	6470	7350	7170	3410	3440
5	674	692	1370	816	1350	1700	5000	6000	8140	7090	3400	3440
6	674	772	1150	1020	1700	1810	4900	5530	9410	7000	3460	3570
7	670	722	1090	1090	1800	1860	5000	5360	10200	7250	3480	3880
8	670	689	973	1040	2200	1920	4800	5280	10600	7220	3470	3880
9	667	674	828	1030	2000	2120	4700	5360	10800	7330	3470	3500
10	663	674	931	1060	1890	2290	4600	6280	11400	7020	3450	3260
11	663	674	952	1120	1820	2360	5000	6020	10800	6240	3430	3230
12	663	670	1060	1160	1710	2480	4900	6050	9490	5670	3400	3060
13	663	670	1070	1130	1600	2340	4700	6190	8960	5170	3420	2860
14	667	674	2210	1100	1580	2200	4400	6470	9160	4760	3680	2790
15	681	734	8120	1200	1550	2050	4340	7530	9620	4610	3590	2730
16	669	824	4820	1280	1430	1960	5040	7580	9400	4560	3530	2670
17	734	761	3030	1500	1350	2000	4830	7010	8850	4450	3570	2620
18	741	674	2320	1520	1470	2170	4300	6540	8670	4040	3500	2600
19	685	670	1880	1400	1470	2480	4140	6290	8610	3840	3430	2640
20	678	670	1420	1330	1430	2820	4280	6150	8440	3600	3380	2720
21	670	670	1150	1250	1420	3120	4610	6450	8090	3750	3400	2710
22	660	667	1410	1220	1430	3450	4360	7360	8040	3730	3460	2690
23	660	678	1420	1100	1460	4030	4200	7670	8080	3650	3570	2670
24	670	761	1440	973	1530	4400	4100	7600	7900	3580	3570	2650
25	670	856	1380	1310	1600	4210	4240	7580	7990	3520	3520	2630
26	670	1260	1310	1470	1640	4350	4860	7160	7510	3510	3490	2610
27	680	1650	1210	1320	1640	4880	6070	6690	6970	3560	3520	2590
28	700	1240	1050	1260	1560	5530	6040	6350	6890	3580	3570	2620
29	700	1080	1090	1330	---	6040	6040	6650	7120	3570	3550	2700
30	740	1040	1170	1280	---	6780	6080	6890	7350	3500	3530	2610
31	800	---	1100	1240	---	7190	---	6690	---	3430	3530	---
TOTAL	21558	23947	52971	35594	43980	94920	151070	204140	256050	158440	108200	89840
MEAN	695	798	1709	1148	1571	3062	5036	6585	8535	5111	3490	2995
MAX	865	1650	8120	1520	2200	7190	7520	7670	11400	7440	3680	3880
MIN	660	667	828	692	1250	1540	4100	5280	6560	3430	3380	2590
AC-FT	42760	47500	105100	70600	87230	188300	299600	404900	507900	314300	214600	178200

CAL YR 1977 TOTAL 544532 MEAN 1492 MAX 8120 MIN 660 AC-FT 1080000
WTR YR 1978 TOTAL 1240702 MEAN 3399 MAX 11400 MIN 660 AC-FT 2461000

13249500 PAYETTE RIVER NEAR EMMETT, ID

LOCATION.--Lat 43°55'50", long 116°26'30", in SW¼NE¼ sec.22, T.7 N., R.1 W., Gem County, Hydrologic Unit 17050122, on right bank 0.3 mi (0.5 km) downstream from Black Canyon Dam, 5 mi (8.0 km) northeast of Emmett, and at mile 38.4 (61.8 km).

DRAINAGE AREA.--2,680 mi² (6,940 km²), approximately.

PERIOD OF RECORD.--June 1925 to current year.

REVISED RECORDS.--WSP 1153: 1946(m), 1948(m).

GAGE.--Water-stage recorder. Datum of gage is 2,400.32 ft (731.617 m) National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records good. Flow regulated by Deadwood Reservoir beginning November 1930 (see sta 13236000), Cascade Reservoir beginning November 1947 (see sta 13244500), other smaller reservoirs, and to some extent by Black Canyon Dam 0.3 mi (0.5 km) upstream where flow is regulated by diversion and gate operation at dam. Diversions above station for irrigation of about 160,000 acres (65,000 hm²), of which about 43,700 acres (18,000 hm²) are below station and about 53,000 acres (21,000 hm²) are in adjacent basins (1966 determination).

AVERAGE DISCHARGE.--53 years, 3,012 ft³/s (85.30 m³/s), 2,182,000 acre-ft/yr (2,690 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,700 ft³/s (926 m³/s) Dec. 23, 1964, gage height, 15.88 ft (4.840 m); minimum daily discharge, 0.7 ft³/s (20 dm³/s) Jan. 7, 1957, gage height, -1.49 ft (-0.454 m), when gates in dam were closed.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 17,200 ft³/s (487 m³/s) June 7, gage height, 11.03 ft (3.362 m); minimum, 456 ft³/s (12.9 m³/s) Nov. 21, gage height, 1.50 ft (0.457 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

1.7	551	4.0	2,930
2.0	730	5.0	4,380
2.5	1,150	7.0	7,830
3.0	1,690	9.0	12,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1100	803	1110	1120	1530	1990	8990	6960	6590	6590	1890	2080
2	963	730	1200	589	1560	1940	8610	7230	6080	6390	1940	2060
3	849	803	2610	880	2120	1930	7070	7430	6430	6220	1860	2070
4	826	759	2480	1310	1990	1990	6240	7230	6760	6260	1830	2050
5	788	766	1800	1470	1890	2260	5810	6690	7510	6220	1830	2050
6	744	826	1480	1690	2780	2490	5330	6080	8710	6020	1870	2310
7	759	841	1360	1480	2870	2450	5570	5600	9580	6260	1900	2830
8	744	788	1210	1360	4100	2540	5080	5820	9910	6190	1870	2880
9	724	704	1040	1350	3450	2820	4950	5500	10100	6320	1900	2530
10	730	672	1050	1560	3100	3060	5050	6270	10600	5960	1890	2230
11	717	781	1230	1950	2830	3090	5380	6910	10300	5230	1990	2260
12	698	704	1340	1930	2550	3270	5380	6850	8870	4610	2160	2180
13	698	766	1450	1690	2350	3040	5120	6200	8260	4020	2240	2050
14	704	724	2500	1580	2240	2840	4810	6310	8420	3580	2480	2000
15	717	796	10600	2120	2190	2620	4740	7340	8770	3340	2070	1970
16	679	896	7130	2300	2000	2490	5640	7680	8650	3250	2020	1860
17	698	872	3800	2760	1830	2450	5620	6930	8110	3130	2050	1790
18	679	752	2880	2480	1920	2620	4790	6380	7880	2700	1970	1790
19	691	641	2290	2160	1970	2950	4430	6030	7860	2410	1890	1850
20	679	600	1790	2020	1920	3350	4570	5900	7680	2360	1840	2000
21	654	551	1250	1820	1910	3690	5150	6100	7400	2280	1850	1890
22	679	635	1590	1740	1870	4100	4860	7000	7290	2260	1920	1870
23	660	730	1690	1580	1890	4730	4690	7340	7320	2140	2060	1850
24	685	833	1810	1270	1970	5490	4470	7310	7160	2070	2020	1820
25	666	1010	1680	1560	2160	5130	4550	7140	7290	1990	1980	1780
26	685	1430	1600	1860	2140	5180	5280	6780	6800	1980	1940	1740
27	717	2070	1500	1660	2120	5760	7240	6240	6190	2000	1980	1750
28	774	1620	1350	1600	2020	6530	7200	6030	6090	2010	2020	1790
29	759	1360	1230	1600	---	7160	6940	6290	6260	2010	2010	1870
30	781	1310	1460	1570	---	8070	6930	6780	6460	1930	1980	1710
31	849	---	1380	1540	---	8630	---	7340	---	1830	2020	---
TOTAL	23096	26773	66890	51619	63270	116660	170540	205690	235320	119560	61270	60910
MEAN	745	892	2158	1665	2260	3763	5685	6635	7844	3857	1976	2030
MAX	1100	2070	10600	2760	4100	8630	8990	7680	10600	6590	2480	2880
MIN	654	551	1040	589	1530	1930	4430	5500	6080	1830	1830	1710
AC-FT	45810	53100	132700	102400	125500	231400	338300	408000	466800	237100	121500	120800

CAL YR 1977 TOTAL 362286 MEAN 993 MAX 10600 MIN 375 AC-FT 718600
WTR YR 1978 TOTAL 1201598 MEAN 3292 MAX 10600 MIN 551 AC-FT 2383000

13250600 BIG WILLOW CREEK NEAR EMMETT, ID

LOCATION.--Lat 44°04'25", long 116°29'10", in SE¼NW¼ sec.32, T.9 N., R.1 W., Payette County, Hydrologic Unit 17050122, Bureau of Land Management lands, 62 ft (19 m) downstream from bridge on Emmett-Council road, 500 ft (152.4 m) upstream from mouth of Four-Mile Creek, 13.5 mi (21.7 km) north of Emmett, and at mile 24.5 (39.4 km).

DRAINAGE AREA.--47.4 mi^2 (123 sq^2 km).

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,810 ft (856.5 m) from topographic map.

REMARKS.--Records good.

AVERAGE DISCHARGE.--16 years (1963-78), 23.8 ft^3/s (0.674 m^3/s), 17,200 acre-ft/yr (21.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,860 ft^3/s (52.7 m^3/s) Dec. 22, 1964, gage height, 7.61 ft (2.320 m); minimum, 0.97 ft^3/s (0.027 m^3/s) July 8, 9, 1975, gage height, 1.96 ft (0.597 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 24 or 25, 1957, reached a peak of 2,100 ft^3/s (59.5 m^3/s), gage height not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 250 ft^3/s (8.08 m^3/s) and maximum (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)	Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)
Dec. 15	0830	*1390	39.4	6.78	2.067	Feb. 7	2000	869	24.6	5.93	1.807
Jan. 12	1845	309	8.75	4.19	1.277	Apr. 16	1900	329	9.32	4.18	1.274
Jan. 15	1200	624	17.7	5.19	1.582	Apr. 27	0500	349	9.88	4.25	1.295
Feb. 3	1145	459	13.0	4.81	1.466						

Minimum daily discharge, 2.3 ft^3/s (0.065 m^3/s).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Feb. 6-9, Apr. 13-29)

1.8	1.8	3.0	75
1.9	2.7	3.5	152
2.0	4.2	4.0	255
2.2	10	5.2	620
2.5	27		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.5	6.3	9.8	12	22	62	32	76	6.2	5.3	2.7	4.0
2	5.2	6.3	19	14	30	52	40	62	6.5	5.2	2.6	4.0
3	5.2	6.3	35	11	181	48	29	51	7.0	5.1	2.6	3.8
4	5.2	6.3	18	11	86	51	37	44	7.5	5.0	2.5	4.0
5	5.5	7.5	14	35	81	76	34	39	7.9	5.2	2.5	4.4
6	5.5	7.2	13	102	248	134	53	32	7.9	5.1	2.5	4.8
7	5.5	6.6	13	45	270	112	130	28	7.6	4.9	2.5	5.7
8	5.5	6.3	9.4	39	388	99	69	24	7.5	4.8	2.5	5.1
9	5.5	6.3	9.0	41	222	115	56	22	7.4	4.8	2.4	4.4
10	5.5	6.3	9.8	66	183	118	50	25	7.3	4.7	2.4	5.3
11	5.5	6.3	21	149	147	109	43	22	6.8	4.6	2.4	5.6
12	5.7	6.3	33	193	114	100	38	21	6.5	4.5	2.3	5.1
13	5.5	6.3	82	109	92	94	35	17	6.2	4.5	3.2	4.9
14	5.7	6.6	288	100	85	75	32	15	5.5	4.4	4.2	4.9
15	5.7	6.9	609	326	78	62	32	14	5.7	4.4	4.0	4.7
16	5.7	6.6	103	296	60	51	166	12	5.7	4.2	4.0	4.2
17	5.7	6.3	69	361	52	44	126	11	5.5	4.1	3.5	4.2
18	5.7	6.3	55	176	50	40	82	10	5.7	4.0	3.8	4.8
19	5.5	6.6	35	135	46	40	65	9.8	6.0	3.9	3.8	4.9
20	5.5	6.3	23	115	63	45	81	9.6	5.5	3.7	3.8	5.1
21	5.7	6.3	20	82	73	47	103	9.7	5.5	3.5	3.8	5.3
22	5.7	7.2	18	81	63	46	89	9.5	5.5	3.6	4.5	5.0
23	5.7	8.3	18	53	59	53	85	8.8	5.2	3.4	4.5	4.8
24	6.0	11	25	40	57	51	69	8.3	5.2	3.3	4.2	4.8
25	5.7	37	28	36	127	42	63	8.0	5.7	3.3	4.0	4.8
26	6.0	44	25	36	89	38	105	7.8	5.5	3.1	4.2	4.8
27	6.0	17	22	30	82	36	240	7.5	5.3	3.0	4.2	5.0
28	6.3	14	19	29	70	34	157	7.4	5.3	2.9	4.0	5.5
29	6.6	12	18	30	---	31	116	7.4	5.4	3.1	4.0	5.5
30	7.2	10	24	24	---	29	97	7.0	5.4	2.9	4.0	5.7
31	6.6	---	19	23	---	29	---	6.6	---	2.7	4.0	---
TOTAL	177.8	296.7	1704.0	2800	3118	1963	2354	632.4	185.9	127.2	105.6	145.1
MEAN	5.74	9.89	55.0	90.3	111	63.3	78.5	20.4	6.20	4.10	3.41	4.84
MAX	7.2	44	609	361	388	134	240	76	7.9	5.3	4.5	5.7
MIN	5.2	6.3	9.0	11	22	29	29	6.6	5.2	2.7	2.3	3.8
AC-FT	353	589	3380	5550	6180	3890	4670	1250	369	252	209	288

CAL YR 1977 TOTAL 3627.1 MEAN 9.94 MAX 609 MIN 3.0 AC-FT 7190
WTR YR 1978 TOTAL 13609.7 MEAN 37.3 MAX 609 MIN 2.3 AC-FT 26990

NOTE.--No gage-height record May 16 to June 13, June 27 to Aug. 14, Sept. 2-21.

13251000 PAYETTE RIVER NEAR PAYETTE, ID

LOCATION.--Lat 44°02'33", long 116°55'27", in NE¼SE¼SW¼ sec.10, T.8 N., R.5 W., Payette County, Hydrologic Unit 17050122, on right bank just upstream from bridge on U.S. Highway 95, 1.8 mi (2.9 km) south of Payette, and at mile 4.1 (6.6 km).

DRAINAGE AREA.--3,240 mi² (8,390 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1935 to current year. Records for January 1895 to July 1897 (published as "at Payette" in 18th and 19th Annual Reports) have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 1397: 1949(m), 1952, 1953-54(m).

GAGE.--Water-stage recorder. Datum of gage is 2,138.44 ft (651.797 m) National Geodetic Vertical Datum of 1929. Aug. 1, 1935, to Aug. 7, 1939, nonrecording gage at site 50 ft (15 m) downstream at present datum.

REMARKS.--Records excellent. Flow regulated by Deadwood Reservoir (see sta 13236000), Cascade Reservoir beginning November 1947 (see sta 13244500), other smaller reservoirs, and to some extent by Black Canyon Dam 34.6 mi (55.7 km) upstream where flow is regulated by diversion and gate operation at dam. Diversions above station for irrigation of about 196,000 acres (79,000 hm²) of which about 100 acres (40 hm²) are by withdrawals from ground water, about 5,100 acres (2,100 hm²) are located below station, and about 53,000 acres (21,000 hm²) are in adjacent basins (1966 determination).

AVERAGE DISCHARGE.--43 years, 3,101 ft³/s (87.82 m³/s) 2,247,000 acre-ft/yr (2,770 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,900 ft³/s (875 m³/s) Dec. 24, 1964, gage height, 13.80 ft (4.206 m); minimum, 71 ft³/s (2.01 m³/s) July 1, 1977, gage height, 3.27 ft (0.997 m); minimum daily, 150 ft³/s (4.25 m³/s) June 29, 30, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,700 ft³/s (388 m³/s) Dec. 16, (gage height, 10.34 ft (3.152 m); minimum, 732 ft³/s (20.73 m³/s) Oct. 13, gage height, 4.22 ft (1.286 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

4.0	540	7.0	5,320
4.5	1,115	8.0	7,570
5.0	1,770	9.0	10,050
5.5	2,510	10.0	12,700
6.0	3,360		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1270	1110	1530	1670	1900	2460	8860	7240	6250	5870	1210	1890
2	1400	1040	1430	1220	1940	2420	9190	7280	5260	5890	1310	1860
3	1120	1040	2050	967	2260	2340	7820	7560	5550	5730	1300	1900
4	984	1090	3040	1490	2920	2450	6720	7350	5870	5760	1260	1890
5	977	1040	2420	1740	2430	2670	6220	6870	6360	5910	1260	1900
6	910	1100	1950	1990	3070	2980	5630	6190	7330	5590	1280	2130
7	887	1140	1710	2150	3400	2960	5870	5770	8610	5770	1350	2660
8	880	1090	1640	1810	4980	2980	5590	5470	9110	5730	1360	3040
9	871	1050	1440	1760	4150	3150	5200	5170	9320	5830	1370	2870
10	871	943	1270	1960	4230	3460	5200	5470	9630	5620	1380	2500
11	847	980	1480	2650	3620	3500	5280	6430	10100	5120	1340	2480
12	812	1030	1550	2790	3310	3610	5580	6660	8780	4330	1580	2470
13	812	1000	1750	2570	3010	3530	5350	6000	7810	3710	1670	2310
14	824	1020	2110	2240	2840	3300	5070	5620	7650	3190	1950	2220
15	859	1030	7450	2520	2770	3090	4870	6460	7870	2860	1850	2190
16	919	1100	10400	3330	2700	2900	5500	7470	8140	2760	1670	2100
17	895	1200	5090	3730	2420	2810	6360	6620	7630	2660	1730	2000
18	895	1130	3810	3590	2390	2870	5330	6000	7220	2350	1710	1940
19	895	943	3080	2950	2450	3110	4870	5600	7270	1910	1630	1920
20	907	883	2530	2750	2450	3480	4820	5240	7010	1810	1580	2070
21	907	836	1950	2500	2400	3830	5350	5310	6800	1740	1550	2050
22	859	883	1820	2340	2350	4170	5350	5890	6550	1750	1580	2020
23	871	967	2090	2230	2360	4640	5050	6580	6610	1680	1690	2030
24	907	1110	2230	1910	2380	5460	4860	6710	6580	1600	1750	1980
25	919	1400	2210	1810	2690	5490	4830	6550	6520	1420	1710	1960
26	907	1610	2060	2200	2630	5240	5260	6390	6560	1370	1700	1880
27	931	2050	1980	2230	2630	5630	7130	5850	5710	1390	1710	1850
28	980	2310	1850	2020	2570	6360	7910	5450	5410	1400	1770	1830
29	1050	1780	1640	2020	---	7060	7330	5500	5440	1400	1780	1940
30	1040	1640	1810	2080	---	7790	7250	5750	5680	1350	1780	1870
31	1080	---	1830	1980	---	8650	---	6050	---	1300	1790	---
TOTAL	29286	35545	79200	69197	79250	124390	179650	193300	214630	104800	48600	63750
MEAN	945	1185	2555	2232	2830	4013	5988	6235	7154	3381	1568	2125
MAX	1400	2310	10400	3730	4980	8650	9190	7560	10100	5910	1950	3040
MIN	812	836	1270	967	1900	2340	4820	5170	5260	1300	1210	1830
AC-FT	58090	70500	157100	137300	157200	246700	356300	383400	425700	207900	96400	126400

CAL YR 1977 TOTAL 343299 MEAN 941 MAX 10400 MIN 150 AC-FT 680900
WTR YR 1978 TOTAL 1221598 MEAN 3347 MAX 10400 MIN 812 AC-FT 2423000

13251000 PAYETTE RIVER NEAR PAYETTE, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT 31...	1200	--	217	--	13.0	10.0	--	--	--
NOV 07...	1250	1110	213	--	9.5	9.0	--	--	--
FEB 03...	1505	2030	162	--	7.5	4.5	--	--	--
MAR 20...	1225	3310	112	--	16.0	8.0	--	--	--
APR 24...	1010	4640	78	--	17.0	9.0	--	--	--
JUN 21...	1225	7020	62	--	26.5	15.0	--	--	--
JUL 17...	1155	2700	109	7.5	23.5	18.0	39	0	12
SEP 11...	1110	2550	123	7.2	15.0	15.0	40	0	12

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT 31...	--	--	--	--	--	--	--	--	--
NOV 07...	--	--	--	--	--	--	--	--	--
FEB 03...	--	--	--	--	--	--	--	--	--
MAR 20...	--	--	--	--	--	--	--	--	--
APR 24...	--	--	--	--	--	--	--	--	--
JUN 21...	--	--	--	--	--	--	--	--	--
JUL 17...	2.1	9.5	34	.7	1.2	57	0	47	5.8
SEP 11...	2.4	12	39	.8	1.3	69	0	57	7.4

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 31...	--	--	--	--	--	--	--	--
NOV 07...	--	--	--	--	--	--	--	--
FEB 03...	--	--	--	--	--	--	--	--
MAR 20...	--	--	--	--	--	--	--	--
APR 24...	--	--	--	--	--	--	--	--
JUN 21...	--	--	--	--	--	--	--	--
JUL 17...	1.7	.3	13	74	.10	539	.16	.05
SEP 11...	2.3	.4	14	87	.12	599	.23	.04

13258500 WEISER RIVER NEAR CAMBRIDGE, ID

LOCATION.--Lat 44°34'47", long 116°38'20", in SE¼NE¼ sec.1, T.14 N., R.3 W., Washington County, Hydrologic Unit 17050124, on left bank 100 ft (30.5 m) upstream from road bridge, 2.2 mi (3.5 km) northeast of Cambridge, 2.5 mi (4.0 km) upstream from Rush Creek, and at mile 48.7 (78.4 km).

DRAINAGE AREA.--605 mi² (1,567 km²). Mean altitude, 4,650 ft (1,420 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,647.00 ft (806.806 m) National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). Aug. 29, 1956, to Aug. 19, 1966, at datum 5.0 ft (1.52 m) higher, Aug. 20, 1966, to July 8, 1976, at datum 3.00 ft (0.914 m) higher. Apr. 23, 1939, to Dec. 21, 1955, at site 135 ft (41.1 m) downstream at different datum. Nonrecording gage at different datum, prior to Apr. 23, 1939, at site 135 ft (41.1 m) downstream and Dec. 22, 1955, to Aug. 28, 1956, at bridge 2.5 mi (4.0 km) downstream.

REMARKS.--Records good. Flow regulated to some extent by Lost Valley Reservoir about 57 mi (92 km) upstream, capacity reported to be 11,000 acre-ft (13.6 hm³) and other smaller reservoirs. Diversions above station for irrigation of about 12,200 acres (4,940 hm²), 1966 determination.

AVERAGE DISCHARGE.--39 years, 659 ft³/s (18.7 m³/s), 477,400 acre-ft/yr (589 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,100 ft³/s (286 m³/s) Dec. 22, 1955, gage height, 13.9 ft (4.24 m), from floodmark, site and datum then in use; minimum, 7.1 ft³/s (0.20 m³/s) Aug. 21-24, 1977, gage height, 2.23 ft (0.680 m).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 3,300 ft³/s (93.5 m³/s) and maximum (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft³/s)	(m³/s)	(ft)	(m)	Date	Time	(ft³/s)	(m³/s)	(ft)	(m)
Dec. 15	1345	*7560	214	12.11	3.691	Apr. 2	0745	3560	101	9.12	2.780
Feb. 8	0030	4150	118	9.93	3.027	Apr. 27	0530	4150	118	9.66	2.944

Minimum daily discharge, 37 ft³/s (1.05 m³/s) Nov. 21.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Jan. 28 to Feb. 10)

2.9	35	6.0	925
3.3	63	7.0	1,570
3.9	152	8.0	2,400
4.3	246	9.0	3,390
5.0	467	11.0	5,850

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	88	68	156	118	344	568	3210	2670	1030	563	98	55
2	70	66	270	83	370	519	3380	2640	1040	508	93	54
3	61	66	611	178	651	508	2760	2540	1130	485	84	54
4	58	63	397	224	689	519	2310	2310	1210	576	79	53
5	55	71	293	270	633	833	2070	2020	1330	568	75	52
6	54	108	249	394	1520	1130	2470	1760	1400	489	75	69
7	52	89	231	374	2160	981	2820	1680	1410	449	74	113
8	54	78	184	341	2650	1000	2290	1610	1400	435	71	162
9	55	69	158	384	1860	1330	2030	1660	1380	411	69	123
10	52	71	175	418	1400	1500	1910	2040	1360	367	69	127
11	52	68	198	438	1090	1340	1960	2090	1200	335	66	160
12	52	68	361	515	903	1280	1870	1890	1060	307	64	130
13	52	68	1380	527	761	1100	1740	1790	1050	281	72	117
14	52	72	2490	523	670	1050	1660	1970	1050	262	104	110
15	53	83	5880	698	638	950	1630	2270	981	246	92	99
16	52	93	2250	1170	543	900	2010	2080	897	229	102	96
17	52	78	1320	2200	481	850	1850	1610	843	207	104	92
18	52	62	947	1570	467	940	1690	1690	843	184	99	96
19	52	57	684	1230	442	1120	1550	1620	817	173	84	96
20	52	46	470	1070	421	1250	1550	1630	807	156	83	91
21	52	37	414	886	435	1350	1630	1760	802	140	77	88
22	50	58	428	1000	442	1480	1500	1960	786	144	72	89
23	51	84	407	751	442	1770	1480	1610	766	134	78	86
24	52	101	364	568	452	2120	1370	1650	756	123	72	80
25	54	112	335	539	572	1830	1420	1490	786	122	67	79
26	61	222	304	504	559	1810	1910	1330	679	113	64	75
27	69	254	276	442	656	2020	3980	1220	629	113	63	73
28	61	196	234	414	615	2320	3560	1240	620	113	63	72
29	61	194	265	424	---	2550	3170	1310	606	117	58	72
30	72	194	267	377	---	2780	2860	1230	602	107	55	73
31	77	---	239	367	---	2870	---	1080	---	102	55	---
TOTAL	1780	2896	22237	18997	22866	42568	65640	55850	29270	8559	2381	2736
MEAN	57.4	96.5	717	613	817	1373	2188	1802	976	276	76.8	91.2
MAX	88	254	5880	2200	2650	2870	3980	2670	1410	576	104	162
MIN	50	37	156	83	344	508	1370	1080	602	102	55	52
AC-FT	3530	5740	44110	37680	45350	84430	130200	110800	58060	16980	4720	5430

CAL YR 1977 TOTAL 47948.0 MEAN 131 MAX 5880 MIN 7.1 AC-FT 95100
WTR YR 1978 TOTAL 275780.0 MEAN 756 MAX 5880 MIN 37 AC-FT 547000

13258500 WEISER RIVER NEAR CAMBRIDGE, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

REMARKS.--Miscellaneous chemical data published for water year 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT 30...	1105	73	151	--	6.0	8.5	--	--	--
DEC 16...	1650	1480	--	--	12.0	3.5	--	--	--
FEB 02...	1000	375	107	--	.5	2.0	--	--	--
08...	1745	2090	61	--	5.5	5.5	--	--	--
MAR 21...	1330	1370	73	--	19.0	7.5	--	--	--
APR 25...	1220	1420	76	8.0	20.0	9.5	34	0	8.4
JUN 09...	1210	1380	55	--	25.0	10.0	--	--	--
JUL 18...	1025	189	95	--	22.0	18.0	--	--	--
SEP 12...	1135	134	123	7.4	20.5	13.5	51	0	13

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT 30...	--	--	--	--	--	--	--	--	--
DEC 16...	--	--	--	--	--	--	--	--	--
FEB 02...	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--
MAR 21...	--	--	--	--	--	--	--	--	--
APR 25...	3.2	3.6	18	.3	1.0	46	0	38	1.3
JUN 09...	--	--	--	--	--	--	--	--	--
JUL 18...	--	--	--	--	--	--	--	--	--
SEP 12...	4.4	8.0	25	.5	2.1	69	0	57	8.0

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 30...	--	--	--	--	--	--	--	--
DEC 16...	--	--	--	--	--	--	--	--
FEB 02...	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--
MAR 21...	--	--	--	--	--	--	--	--
APR 25...	1.0	.1	26	68	.09	261	.06	.04
JUN 09...	--	--	--	--	--	--	--	--
JUL 18...	--	--	--	--	--	--	--	--
SEP 12...	2.8	.1	27	99	.13	35.8	.00	.02

13266000 WEISER RIVER NEAR WEISER, ID

LOCATION.--Lat 44°16'03", long 116°46'16", in NE¼SE¼SE¼ sec.23, T.11 N., R.4 W., Washington County, Hydrologic Unit 17050124, on right bank 0.25 mi (0.40 km) upstream from county road bridge, 2.0 mi (3.2 km) downstream from Crane Creek, 10 mi (16 km) east of Weiser, and at mile 14.9 (24.0 km).

DRAINAGE AREA.--1,460 mi² (3,780 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1890 to June 1891, December 1894 to October 1896, April to September 1897, March 1898 to November 1899, March 1900 to December 1904, October 1910 to December 1914, October 1952 to current year. Published as "at Weiser" prior to 1900.

REVISED RECORDS.--WSP 1347: 1895-1905, 1953(M).

GAGE.--Water-stage recorder. Altitude of gage is 2,206.14 ft (672.431 m). Prior to October 1952, nonrecording gages at several sites downstream within 1.5 mi (2.4 km) of present site at various datums. October 1952 to January 1974, water-stage recorder 1,000 ft (300 m) upstream at different datum. January to October 1974, nonrecording gage at nearby sites and different datums.

REMARKS.--Records good. Flow slightly regulated since 1911 by Crane Creek Reservoir 14.3 mi (23.0 km) upstream (capacity about 51,700 acre-ft or 63.7 hm³) and other small reservoirs. Diversions above station for irrigation of about 30,400 acres or 12,300 hm² (1966 determination).

AVERAGE DISCHARGE.--35 years (1896, 1899, 1901-4, 1912-14, 1953-78), 1,143 ft³/s (32.37 m³/s), 828,100 acre-ft/yr (1,021 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 19,900 ft³/s (564 m³/s) Dec. 23, 1955, gage height, 11.06 ft (3.371 m); maximum gage height, 12.83 ft (3.911 m) Jan. 31, 1961 (ice jam); minimum observed, 14 ft³/s (0.40 m³/s) Aug. 7, 1911, gage height, 2.80 ft (0.853 m), site and datum then in use; minimum gage height, 1.45 ft (0.442 m) Nov. 29, 1970.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 19, 1932, reached a discharge of about 17,500 ft³/s (496 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum recorded discharge, 12,100 ft³/s (343 m³/s) Dec. 15, gage height, 10.45 ft (3.185 m); minimum discharge, 36 ft³/s (1.02 m³/s) Nov. 22, gage height, 3.24 ft (0.988 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 21, Jan. 3, 4)

3.2	30	6.0	1,920
3.4	59	7.0	3,420
3.7	126	8.0	5,420
4.0	226	9.0	7,800
4.5	467	10.5	12,200
5.0	827		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	169	126	284	368	683	1340	3950	3720	1660	924	238	208
2	135	105	262	166	706	1230	4340	3700	1670	853	238	205
3	116	100	915	380	1350	1180	3710	3600	1800	794	238	194
4	108	100	770	450	1960	1180	3130	3130	1950	880	234	194
5	98	100	542	492	1560	2020	2890	2680	2170	1020	254	194
6	96	100	427	827	3470	2630	3270	2510	2330	836	267	191
7	93	129	389	862	6450	2150	4300	2300	2400	737	246	205
8	91	121	344	706	7450	2120	3460	2200	2420	683	227	292
9	89	110	288	706	4580	2660	2980	2300	2430	661	246	279
10	93	105	262	915	3440	2790	2750	2820	2450	603	254	234
11	91	108	288	1000	2490	2580	2700	3020	2250	529	250	238
12	93	105	467	1160	2010	2460	2630	2870	1960	473	242	246
13	93	105	1200	1380	1750	2180	2480	2660	1750	400	246	219
14	96	108	3200	1230	1570	1970	2320	2780	1840	389	250	208
15	93	113	10400	1800	1490	1740	2250	3170	1690	353	301	196
16	93	126	5400	2820	1400	1600	2720	3200	1590	315	279	186
17	93	132	2280	5440	1220	1510	2820	2780	1470	297	284	186
18	93	129	1770	3760	1150	1610	2490	2450	1440	267	267	186
19	100	113	1280	2670	1100	1840	2310	2330	1390	234	238	189
20	113	91	924	2520	1090	2040	2240	2330	1360	208	216	186
21	132	70	706	1950	1060	2210	2520	2450	1340	258	212	182
22	147	91	730	2100	1030	2420	2580	2760	1350	267	208	182
23	147	126	699	1650	1020	2750	2480	2700	1330	258	208	176
24	150	163	646	1170	1040	3180	2210	2480	1280	242	219	166
25	176	196	596	1020	1380	2860	2300	2290	1310	234	208	163
26	179	200	556	953	1340	2600	2870	2060	1210	246	205	159
27	179	416	523	889	1470	2760	5650	1870	1070	234	216	153
28	182	348	479	794	1490	3100	5000	1790	1040	242	219	147
29	132	310	450	786	---	3350	4450	1920	1020	250	227	144
30	126	324	479	836	---	3600	3950	1910	981	246	223	150
31	129	---	461	714	---	3760	---	1780	---	242	208	---
TOTAL	3725	4470	38017	42514	56749	71420	93750	80560	49951	14175	7368	5858
MEAN	120	149	1226	1371	2027	2304	3125	2599	1665	457	238	195
MAX	182	416	10400	5440	7450	3760	5650	3720	2450	1020	301	292
MIN	89	70	262	166	683	1180	2210	1780	981	208	205	144
AC-FT	7390	8870	75410	84330	112600	141700	186000	159800	99080	28120	14610	11620

CAL YR 1977 TOTAL 82547 MEAN 226 MAX 10400 MIN 35 AC-FT 163700
WTR YR 1978 TOTAL 468557 MEAN 1284 MAX 10400 MIN 70 AC-FT 929400

13266000 WEISER RIVER NEAR WEISER, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
OCT										
31...	0930	131	152	--	6.5	7.5	--	--	--	--
NOV										
07...	1550	143	171	--	8.0	7.0	--	--	--	--
DEC										
16...	0830	4170	--	--	1.0	4.0	--	--	--	--
22...	1440	713	104	--	.0	.5	--	--	--	--
FEB										
03...	1110	1030	112	--	5.0	3.0	--	--	--	--
08...	1355	6910	80	--	7.5	4.0	--	--	--	--
MAR										
20...	1625	2200	78	--	22.0	10.5	--	--	--	--
APR										
24...	1500	2290	88	8.6	21.5	11.5	39	0	9.5	3.7
JUN										
14...	1715	1830	60	8.4	33.0	17.5	27	0	6.7	2.5
JUL										
17...	1425	276	--	--	27.0	22.0	--	--	--	--
SEP										
11...	1505	251	156	8.2	19.0	17.5	63	0	15	6.3

DATE	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
OCT									
31...	--	--	--	--	--	--	--	--	--
NOV									
07...	--	--	--	--	--	--	--	--	--
DEC									
16...	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--
FEB									
03...	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--
MAR									
20...	--	--	--	--	--	--	--	--	--
APR									
24...	4.1	18	.3	1.4	52	0	43	4.4	1.2
JUN									
14...	3.2	20	.3	1.0	35	0	29	2.5	.7
JUL									
17...	--	--	--	--	--	--	--	--	--
SEP									
11...	8.6	22	.5	3.0	91	0	75	6.7	2.5

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
OCT									
31...	--	--	--	--	--	--	--	--	--
NOV									
07...	--	--	--	--	--	--	--	--	--
DEC									
16...	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--
FEB									
03...	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--
MAR									
20...	--	--	--	--	--	--	--	--	--
APR									
24...	.2	28	79	.11	488	.25	.09	--	--
JUN									
14...	.1	22	58	.08	287	.39	.05	37	183
JUL									
17...	--	--	--	--	--	--	--	--	--
SEP									
11...	.1	27	114	.16	77.3	.00	.05	--	--

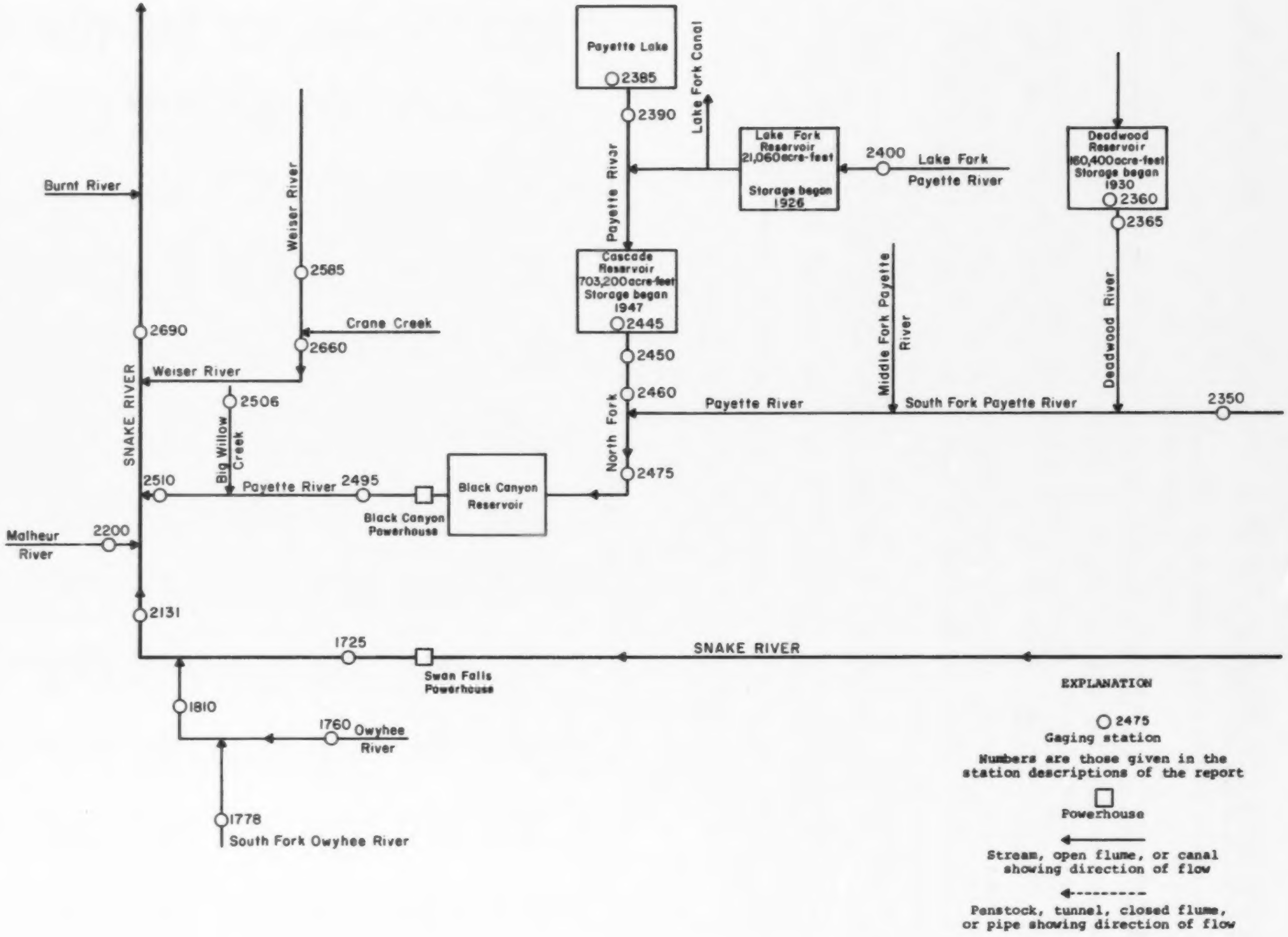
Payette Lake
2385
2390
Lake Fork Canal
Lake Fork Reservoir 21,060 acre-feet Storage began 1926
2400
Lake Fork Payette River
Deadwood Reservoir 160,400 acre-feet Storage began 1930
2360
2365
Burnt River
Weiser River
2585
Crane Creek
2660
2690
Weiser River
Payette River
Cascade Reservoir 703,200 acre-feet Storage began 1947
2445
2450
2460
North Fork
2475
Middle Fork Payette River
Deadwood River
Payette River
South Fork Payette River
2350
SNAKE RIVER
2506
Big Willow Creek
2510
Payette River
2495
Black Canyon Powerhouse
Black Canyon Reservoir
Malheur River
2200
2131
1725
Swan Falls Powerhouse
SNAKE RIVER
1810
1760
Owyhee River
1778
South Fork Owyhee River
EXPLANATION
2475
Gaging station
Numbers are those given in the station descriptions of the report
Powerhouse
Stream, open flume, or canal showing direction of flow
Penstock, tunnel, closed flume, or pipe showing direction of flow

FIGURE 14.--Gaging stations in Payette and Weiser River basins.

13269000 SNAKE RIVER AT WEISER, ID

LOCATION.--Lat 44°14'44", long 116°58'48", in NW¼SE¼ sec.31, T.11 N., R.5 W., Washington County, Hydrologic Unit 17050124, on right bank at upstream side of U.S. Highway 30N bridge at Weiser, 0.7 mi (1.1 km) downstream from Weiser River, and at mile 351.3 (565.2 km).

DRAINAGE AREA.--69,200 mi² (179,230 km²), approximately. Mean altitude, 5,400 ft (1,646 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1910 to current year. Fragmentary gage-height record obtained by U.S. Weather Bureau since 1895. Monthly discharge only for October 1910, published in WSP 1317.

REVISED RECORDS.--WSP 1317: 1918. WSP 1567: 1910(M). WDR ID-76-1: 1975.

GAGE.--Water-stage recorder. Datum of gage is 2,086.64 ft (636.008 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1914, nonrecording gage 0.2 mi (0.3 km) downstream at different datum. Oct. 1, 1914, to Oct. 11, 1933, nonrecording gage, and Oct. 12, 1933, to Apr. 13, 1964, water-stage recorder, at site 0.3 mi (0.5 km) upstream at same datum.

REMARKS.--Records good. Flow regulated by many reservoirs above station. Diurnal fluctuation caused by hydroelectric plants upstream. Diversions above station for irrigation of about 3,650,000 acres (1,477,200 hm²) of which about 742,000 acres (300,300 hm²) are by withdrawals from ground water. In addition, approximately 7,300 acres (2,954 hm²) are irrigated below station by diversion from Weiser River (1966 determination).

AVERAGE DISCHARGE.--68 years, 18,120 ft³/s (513 m³/s), 13,130,000 acre-ft/yr (16,200 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 84,500 ft³/s (2,390 m³/s) Apr. 29, 1952, gage height, 14.67 ft (4.471 m), site and datum then in use; maximum gage height recorded, 15.55 ft (4.740 m) Dec, 20, 1972 (backwater from ice jam); minimum observed, 4,570 ft³/s (129 m³/s) July 1, 1977, gage height, 1.32 ft (0.402 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 3, 1910, reached a stage of 17.1 ft (5.21 m) at site and datum 0.3 mi (0.5 km) upstream, from reading on old U.S. Weather Bureau gage, discharge, 120,000 ft³/s (3,398 m³/s). Flood in June 1894 was considerably higher.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 45,600 ft³/s (1,291 m³/s) Apr. 28, gage height, 8.86 ft (2.701 m); minimum, 8,360 ft³/s (237 m³/s) Aug. 5, gage height, 2.32 ft (0.707 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Jan. 24 to June 26)

2.3	8,100	7.0	32,800
3.0	11,200	9.0	45,500
5.0	21,400		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11000	10500	11400	11600	13100	16100	28000	41300	21500	14600	8660	11100
2	11000	10800	11100	10700	13200	15800	30000	40000	20100	14700	8700	11300
3	10500	10600	11700	10500	14000	15100	28000	38600	18600	14700	8920	11300
4	10200	10700	13400	11000	16000	15600	25500	36800	17700	15800	8490	11400
5	11000	10800	12500	11600	15200	16800	24800	34300	17700	16400	8530	11400
6	11000	10900	11700	11900	17100	18200	24800	31900	18600	16200	8960	11500
7	10900	10200	11800	12600	18700	18200	26200	28900	18900	16100	9320	13700
8	10700	9940	11500	12600	24600	18600	26000	31200	19800	16200	9540	15800
9	10800	10500	11300	11400	22100	19400	28100	30600	20600	16900	9090	16200
10	10300	10200	11100	12400	21800	19800	27100	29000	20600	15200	9050	16000
11	10300	10200	11100	13500	19100	19900	26800	29900	21600	15100	9010	15900
12	10100	10200	11300	14800	16700	20200	28200	29000	20400	12900	9010	16500
13	10700	10400	11800	14000	16900	19500	27500	26400	19900	11500	9050	15800
14	10600	10300	14700	14500	15100	17800	27700	25500	19600	11000	10100	16100
15	10600	10200	24600	14200	15400	17900	27300	26400	18900	10900	10200	17900
16	10700	10100	27700	16900	14600	17000	27000	28000	19200	10600	10200	17100
17	10800	10600	20200	20200	14600	16700	28100	27300	18500	10200	10900	16300
18	10300	11000	17200	21200	13800	16600	26800	25100	17600	9720	10800	14400
19	10300	11000	15500	19800	14500	17700	25900	21200	17400	9180	10900	13600
20	10100	10800	12900	17400	14400	18600	26100	21100	16800	8700	11500	14200
21	10300	10500	12000	15300	13900	19500	26300	19800	17200	8610	11600	14500
22	9980	10600	12000	15700	13800	20800	30300	20600	16100	8610	11400	14700
23	10300	10600	12100	14200	14500	21500	31700	21900	16400	8740	11400	14800
24	10700	10900	12200	13200	14500	23400	30800	23600	16300	8870	11800	14900
25	10500	11400	12000	12900	15400	24200	30700	23900	16600	9270	11100	14900
26	10200	11500	11900	14000	15800	23100	30800	22700	16900	8790	11100	14800
27	10900	12000	11800	14100	16100	22500	37000	21900	15600	8440	11000	14600
28	10800	12300	11800	13600	16100	22800	42700	22600	14400	8530	11100	14500
29	10800	11800	11500	13300	---	25000	44400	22200	14200	8570	11100	13500
30	10900	11700	11600	13500	---	27200	43300	21700	14500	8570	11000	13800
31	10200	---	12000	13000	---	27400	---	22100	---	8700	10900	---
TOTAL	327480	323240	415400	435600	451000	612900	887900	845500	542200	362300	314430	432500
MEAN	10560	10770	13400	14050	16110	19770	29600	27270	18070	11690	10140	14420
MAX	11000	12300	27700	21200	24600	27400	44400	41300	21600	16900	11800	17900
MIN	9980	9940	11100	10500	13100	15100	24800	19800	14200	8440	8490	11100
AC-FT	649600	641100	823900	864000	894600	1216000	1761000	1677000	1075000	718600	623700	857900

CAL YR 1977 TOTAL 3648350 MEAN 9995 MAX 27700 MIN 4570 AC-FT 7237000
WTR YR 1978 TOTAL 5950450 MEAN 16300 MAX 44400 MIN 8440 AC-FT 11800000

13269000 SNAKE RIVER AT WEISER, ID--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.
PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: June 1967 to current year.
INSTRUMENTATION.--Temperature recorder since June 1969.
EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 28.5°C July 25-28, 1975, July 21, 1977; minimum, 0.0°C on several days during December, January, and February of most years.
EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 27.0°C July 29,30; minimum, 1.0°C Dec. 20-24, Jan. 4-8.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)
OCT 31...	1230	10600	539	8.4	12.5	10.0	10	--	11.1	111	170
NOV 14...	1430	10300	567	9.0	10.5	6.5	7	--	12.7	115	--
DEC 30...	1000	11600	483	8.0	2.0	2.0	6	--	12.3	96	560
JAN 26...	1300	14600	458	9.1	1.5	2.0	9	--	11.8	92	320
FEB 17...	1200	14900	461	7.5	.5	3.5	15	--	12.4	101	330
MAR 27...	1700	22800	358	8.9	18.5	11.0	15	--	9.7	94	--
APR 13...	1130	27200	303	8.7	11.0	9.0	10	--	10.5	98	99
MAY 22...	1230	21200	271	8.7	19.5	13.5	--	19	9.3	96	K6500
JUN 20...	1245	16000	274	8.7	29.0	14.5	--	6.4	9.4	98	K120
JUL 25...	1330	9730	*471	8.7	35.0	23.5	--	25	9.9	124	>1200
AUG 21...	1345	11500	433	8.4	29.0	21.0	--	19	8.4	101	320
SEP 25...	1400	14900	*499	8.4	33.0	17.0	--	2.9	10.5	117	190

DATE	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)
OCT 31...	--	--	--	--	--	--	--	--	--	200	17
NOV 14...	--	200	11	45	21	46	33	1.4	5.0	160	34
DEC 30...	K3300	190	18	45	19	40	31	1.3	4.9	210	0
JAN 26...	420	170	0	42	17	36	30	1.2	4.5	100	58
FEB 17...	990	160	17	38	15	35	32	1.2	4.5	170	0
MAR 27...	220	130	7	32	13	26	29	1.0	3.6	130	10
APR 13...	270	110	3	27	10	20	28	.8	3.1	110	10
MAY 22...	K1200	99	0	24	9.6	23	33	1.0	3.2	110	10
JUN 20...	190	98	0	24	9.3	25	35	1.1	3.1	110	7
JUL 25...	K9800	150	4	32	16	42	38	1.5	1.0	150	14
AUG 21...	670	170	6	41	16	35	30	1.2	5.2	200	0
SEP 25...	340	170	19	43	16	37	31	1.2	4.4	180	2

* Not a field determination.
K Results based on count outside ideal colony count range.

13269000 SNAKE RIVER AT WEISER, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)
OCT 31...	192	--	--	--	31	370	--	.50	10600	.37	.01
NOV 14...	190	69	27	.7	32	347	359	.47	9650	.86	.00
DEC 30...	170	62	25	.6	33	325	333	.44	10200	1.7	.03
JAN 26...	179	55	3.8	.6	32	308	298	.42	12100	1.5	.02
FEB 17...	140	56	20	.6	31	283	284	.38	11400	1.4	.01
MAR 27...	123	38	19	.5	24	216	230	.29	13300	.58	.03
APR 13...	107	30	15	.5	20	178	190	.24	13100	.48	.04
MAY 22...	107	33	14	.5	14	174	185	.24	9960	.09	.01
JUN 20...	102	34	15	.5	16	177	189	.24	7650	.28	.00
JUL 25...	146	63	22	.6	22	291	286	.40	7650	.16	.03
AUG 21...	164	62	19	.6	23	303	300	.41	9410	.58	.04
SEP 25...	151	60	22	.6	22	310	296	.42	12500	.65	.00

DATE	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)
OCT 31...	1.1	1.1	--	--	1.5	6.5	.11	--	5.4	--	--
NOV 14...	--	--	--	.57	--	--	.09	.02	9.0	--	--
DEC 30...	--	--	--	.30	--	--	.10	.07	--	--	--
JAN 26...	.52	.54	.30	.24	2.0	9.0	.13	.08	2.4	--	--
FEB 17...	.49	.50	.16	.34	1.9	8.4	.13	.09	3.2	--	--
MAR 27...	.67	.70	.65	.05	1.3	5.7	.03	.02	--	2.7	.4
APR 13...	.21	.25	.16	.09	.73	3.2	.10	.00	2.5	--	--
MAY 22...	--	--	--	1.1	--	--	.10	.00	3.1	--	--
JUN 20...	.84	.84	.51	.33	1.1	5.0	.09	.02	--	2.4	.9
JUL 25...	1.2	1.2	.88	.32	1.4	6.0	.15	.01	7.3	--	--
AUG 21...	1.4	1.4	1.1	.31	2.0	8.8	.15	.03	--	--	--
SEP 25...	.83	.83	.13	.70	1.5	6.6	.10	.01	--	2.6	1.2

13269000 SNAKE RIVER AT WEISER, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)
OCT 31...	7	--	--	--	--	--	2	--	--	8
DEC 30...	6	0	6	100	100	0	3	0	4	0
MAR 27...	4	0	4	100	100	0	2	1	1	10
JUN 20...	4	0	4	200	0	200	3	3	0	0
SEP 25...	5	--	7	0	0	0	2	1	1	0

DATE	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)
OCT 31...	--	--	--	--	--	8	--	--	350	--
DEC 30...	0	10	0	0	0	8	6	2	380	--
MAR 27...	10	0	2	0	3	8	6	2	940	--
JUN 20...	0	0	0	0	0	12	10	2	1300	--
SEP 25...	0	0	0	0	1	5	4	1	810	780

DATE	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)
OCT 31...	--	16	--	--	--	--	--	.2	--	--
DEC 30...	30	16	3	13	30	20	10	.1	.1	.0
MAR 27...	40	4	1	3	60	50	10	.0	.0	.0
JUN 20...	40	50	43	7	50	40	10	.2	.2	.0
SEP 25...	30	24	18	6	40	40	0	.1	.1	.0

DATE	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
OCT 31...	1	--	--	--	--	--	30	--	--
DEC 30...	1	0	1	1	1	0	10	0	10
MAR 27...	0	0	0	0	0	0	40	30	10
JUN 20...	0	0	0	0	0	0	30	20	10
SEP 25...	1	1	0	0	0	0	20	10	10

13269000 SNAKE RIVER AT WEISER, ID--Continued

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ATRAZINE, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL (UG/L)
FEB 17...	1200	14900	ND	--	ND	ND	--	ND	--	ND	--	ND
JUN 20...	1245	16000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 21...	1345	11500	ND	--	--	ND	--	ND	--	ND	--	ND

DATE	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL (UG/L)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN TOTAL (UG/L)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL (UG/L)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
FEB 17...	--	ND	--	ND	--	ND	--	ND	--	ND	--
JUN 20...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 21...	--	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	HEPTACHLOR EPOXIDE TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL (UG/L)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOTAL (UG/L)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOTAL (UG/L)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOTAL (UG/L)
FEB 17...	ND	--	ND	--	ND	--	ND	--	ND	--	ND
JUN 20...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 21...	ND	--	ND	--	ND	--	ND	--	ND	--	ND

DATE	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	PARATHION, TOTAL (UG/L)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	SIMAZINE TOTAL COULSON COND. (UG/L)	TOXAPHENE, TOTAL (UG/L)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
FEB 17...	--	ND	--	ND	ND	--	ND	--	ND	ND	ND
JUN 20...	ND	ND	ND	ND	ND	ND	ND	ND	--	--	--
AUG 21...	--	ND	--	--	ND	--	ND	--	--	--	--

ND Not detected.

13269000 SNAKE RIVER AT WEISER, ID--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1977 TO JULY 1978

DATE	NOV 14,77	MAR 27,78	MAY 22,78	JUN 20,78	JUL 25,78
TIME	1430	1700	1230	1245	0000
TOTAL CELLS/ML	25000	13000	30000	9500	44000
DIVERSITY: DIVISION	0.0	0.8	0.7	0.8	0.8
.CLASS	0.0	0.8	0.7	0.8	0.8
..ORDER	0.1	1.5	1.5	1.6	1.1
...FAMILY	0.1	2.1	1.8	2.5	1.2
....GENUS	0.1	2.3	2.6	2.9	1.8

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHARACIACEAE										
....SCHROEDERIA	--	-	--	-	170	1	--	-	--	-
...MICRACTINIACEAE										
....GOLENKINIA	--	-	77	1	--	-	59	1	--	-
....MICRACTINIUM	--	-	1700	13	--	-	1200	12	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	--	-	77	1	850	3	290	3	--	-
....CHODATELLA	--	-	--	-	340	1	59	1	--	-
....DICTYOSPHAERIUM	--	-	310	2	--	-	--	-	--	-
....FRANCEIA	--	-	--	-	170	1	--	-	--	-
....KIRCHNERIELLA	--	-	77	1	--	-	--	-	690	2
....OOCYSTIS	--	-	--	-	170	1	--	-	--	-
...SCENEDESMACEAE										
....ACTINASTRUM	--	-	310	2	1400	4	--	-	1400	3
....SCENEDESMUS	--	-	310	2	--	-	940	10	3400	8
....TETRASTRUM	--	-	310	2	3400	11	--	-	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	--	-	--	-	59	1	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	25000#	98	7200#	54	13000#	42	3300#	35	29000#	65
....MELOSIRA	--	-	--	-	3100	10	590	6	5800	13
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	--	-	--	-	240	2	--	-
....COCCONEIS	--	-	77	1	--	-	--	-	--	-
...CYMBELLACEAE										
....CYMBELLA	--	-	77	1	--	-	--	-	690	2
...DIATOMACEAE										
....DIATOMA	--	-	--	-	170	1	240	2	--	-
...FRAGILARIACEAE										
....ASTERIONELLA	--	-	2000	15	6100#	20	1900#	20	--	-
....FRAGILARIA	--	-	--	-	1000	3	120	1	--	-
....SYNEDRA	--	-	310	2	--	-	59	1	--	-
...GOMPHONEMATACEAE										
....GOMPHONEMA	--	-	--	-	--	-	59	1	--	-
...NAVICULACEAE										
....NAVICULA	--	-	380	3	510	2	180	2	--	-
...NITZSCHIACEAE										
....NITZSCHIA	450	2	--	-	170	1	240	2	1400	3
...SURIRELLACEAE										
....SURIRELLA	--	-	77	1	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....ANACYSTIS	--	-	--	-	--	-	--	-	2100	5
PYRRHOPHYTA (FIRE ALGAE)										
.DINOPHYCEAE										
..PERIDINIALES										
...PERIDINIACEAE										
....PERIDINIUM	--	-	77	1	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

13269000 SNAKE RIVER AT WEISER, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	LENGTH OF EXPO-SURE (DAYS)	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)
JUN 20...	24	65.8	62.3	9.17	.020

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM
NOV 14...	1430	16	445	--	--	--	--
DEC 30...	1000	12	376	--	--	--	--
JAN 26...	1300	18	710	--	--	--	--
FEB 17...	1200	39	1570	--	--	--	--
MAR 27...	1700	53	3260	--	--	--	--
APR 13...	1130	56	4110	--	--	--	--
MAY 22...	1230	52	2980	--	--	--	--
JUN 20...	1245	23	494	--	--	--	--
JUL 25...	1330	43	1130	39	52	65	78
AUG 21...	1345	42	1300	27	36	46	58
SEP 25...	1400	23	925	--	--	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
NOV 14...	--	92	98	99	100	--
DEC 30...	--	85	89	100	--	--
JAN 26...	--	88	92	97	100	--
FEB 17...	--	52	54	61	72	100
MAR 27...	--	87	92	98	100	--
APR 13...	--	76	82	90	97	100
MAY 22...	--	86	92	97	100	--
JUN 20...	--	100	--	--	--	--
JUL 25...	92	99	100	--	--	--
AUG 21...	78	92	97	100	--	--
SEP 25...	--	97	100	--	--	--

13269000 SNAKE RIVER AT WEISER, ID--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	15.5	14.0	10.0	9.5	4.5	4.0	2.0	1.5	4.0	3.0	7.0	5.0
2	15.5	13.5	10.0	8.5	5.0	4.5	1.5	1.5	4.0	3.0	6.5	5.0
3	15.5	13.5	8.5	7.5	5.5	4.5	1.5	1.5	4.0	3.5	6.0	5.5
4	15.0	13.5	8.5	7.5	4.5	4.0	1.5	1.0	4.5	3.5	5.5	5.0
5	14.5	13.0	9.5	8.5	4.5	3.5	1.0	1.0	5.0	4.0	7.0	5.5
6	14.5	13.5	9.5	8.0	4.5	4.0	1.0	1.0	5.0	4.5	8.0	6.0
7	14.5	13.5	8.5	7.0	4.5	3.0	1.0	1.0	5.5	5.0	7.5	6.5
8	14.5	12.5	7.0	6.0	3.0	2.5	1.5	1.0	5.5	4.5	7.5	7.0
9	14.5	12.5	6.5	6.0	3.0	2.5	2.0	1.5	5.5	5.0	8.5	4.5
10	14.0	12.5	7.0	6.0	4.0	3.0	2.5	2.0	5.0	4.5	8.5	7.0
11	13.5	12.0	6.5	5.0	4.0	3.5	3.0	2.5	5.0	4.5	8.0	6.0
12	13.5	11.5	8.0	5.0	4.5	4.0	4.0	3.0	5.5	4.0	8.0	6.0
13	13.5	12.0	7.5	7.0	5.0	4.5	4.0	3.5	4.5	4.5	7.0	6.0
14	14.5	12.5	7.0	6.5	5.5	4.5	4.5	3.5	5.5	4.5	6.5	5.0
15	14.5	13.0	7.5	6.5	6.5	5.5	4.5	4.0	5.5	4.5	7.5	5.0
16	15.0	13.5	7.5	6.5	5.5	4.5	4.0	3.5	4.5	3.5	8.5	5.5
17	15.0	13.5	6.0	4.5	4.5	4.0	3.5	3.0	4.0	3.5	9.5	6.5
18	14.5	13.5	4.5	4.0	4.0	3.5	4.0	3.5	4.0	3.5	10.5	8.0
19	14.0	13.0	4.0	3.0	3.5	2.0	4.5	4.0	5.0	4.0	11.0	8.5
20	14.5	13.0	2.5	2.0	2.0	1.0	4.5	4.0	7.0	5.0	11.0	8.5
21	14.0	13.0	2.0	2.0	1.0	1.0	5.0	4.5	7.0	6.0	10.0	8.0
22	13.5	12.0	2.5	1.5	1.0	1.0	5.0	4.5	6.5	6.0	10.5	8.0
23	12.5	11.5	3.5	2.0	1.0	1.0	4.0	3.5	6.0	5.5	9.5	8.0
24	13.5	11.5	4.0	3.5	2.5	1.0	3.0	1.5	5.5	5.0	9.0	8.5
25	13.5	13.0	4.0	3.5	3.5	2.5	2.5	1.5	6.5	5.5	10.0	7.5
26	14.5	13.0	6.0	4.0	3.0	3.0	3.5	2.0	7.0	5.5	11.5	8.5
27	13.0	11.5	5.5	4.5	4.0	3.0	3.5	2.0	7.0	6.0	11.5	9.0
28	12.0	11.0	5.0	4.0	3.5	3.0	4.0	3.0	7.0	4.5	11.5	9.0
29	11.5	11.0	6.0	5.0	3.5	3.0	4.5	3.5	---	---	11.0	9.0
30	11.0	10.5	5.5	4.5	3.5	3.0	4.0	2.5	---	---	11.0	9.5
31	10.5	10.0	---	---	3.0	2.0	3.5	3.5	---	---	10.0	9.0
MONTH	15.5	10.0	10.0	1.5	6.5	1.0	5.0	1.0	7.0	3.0	11.5	4.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.5	8.0	13.5	11.0	16.5	12.0	22.0	15.0	25.5	22.0	22.5	20.0
2	8.0	7.0	13.5	11.5	17.0	13.0	18.5	15.5	25.5	22.0	22.5	20.5
3	8.0	6.5	13.0	11.0	18.0	13.5	18.0	13.0	25.5	22.5	22.5	20.5
4	7.5	6.5	11.0	9.0	18.5	14.0	19.0	16.5	25.0	23.0	23.0	20.5
5	7.0	6.0	10.0	7.5	18.0	14.0	19.0	15.5	26.0	22.5	22.5	21.0
6	7.0	6.5	12.5	9.0	17.5	14.0	22.0	19.5	26.5	23.0	20.5	19.0
7	8.0	7.0	14.0	10.0	17.0	13.5	21.5	19.5	26.5	23.0	19.0	17.5
8	10.0	8.0	14.0	10.5	17.0	13.5	22.5	19.0	26.5	23.0	18.5	16.0
9	11.5	9.0	13.5	11.5	16.0	14.0	21.5	19.5	26.0	23.5	18.0	16.5
10	13.0	9.5	13.5	11.0	14.5	12.5	21.0	19.5	25.5	22.5	17.5	15.5
11	13.0	10.5	12.5	11.0	14.5	10.5	23.0	19.0	25.0	22.0	18.0	16.0
12	12.0	9.5	12.0	9.0	16.0	12.5	23.5	19.0	24.5	22.5	17.5	15.5
13	11.5	7.5	14.0	10.5	17.5	13.0	24.5	20.5	22.5	19.5	17.0	15.5
14	12.0	9.0	14.0	12.0	17.5	14.0	23.5	21.5	21.5	18.0	18.5	16.0
15	11.5	9.5	12.0	10.5	17.0	13.5	25.5	23.0	21.5	18.5	18.5	16.5
16	10.5	8.5	10.5	8.5	17.0	12.5	25.0	22.0	20.5	18.5	18.0	16.0
17	9.5	7.0	13.0	9.0	18.5	13.5	24.0	20.5	19.5	17.0	17.0	15.0
18	11.0	7.5	13.0	10.5	17.0	14.0	25.0	21.0	21.0	17.0	15.0	13.0
19	12.5	9.0	15.0	10.5	17.5	12.0	25.0	21.0	21.0	18.0	13.5	11.0
20	11.0	9.5	16.5	12.5	19.5	14.0	24.0	21.0	22.0	18.5	14.5	12.0
21	9.5	7.5	17.0	13.0	18.0	15.0	24.0	21.0	22.0	19.5	14.5	13.0
22	10.5	7.5	15.0	12.0	19.0	15.0	25.0	21.0	21.0	19.5	15.5	13.0
23	11.0	8.0	11.5	9.0	20.5	15.0	25.5	22.0	20.0	18.0	17.0	14.0
24	12.5	10.0	10.0	7.5	19.0	16.0	26.5	23.0	20.5	18.0	17.5	15.5
25	13.0	11.0	11.5	7.5	18.5	14.0	26.5	23.0	21.0	18.5	18.0	15.0
26	12.5	11.5	12.5	9.0	18.5	13.0	26.0	23.0	21.0	19.0	18.5	16.5
27	11.5	10.0	15.5	10.5	21.0	15.0	26.5	23.5	21.0	18.5	18.0	17.0
28	11.0	9.5	17.0	13.0	22.5	18.0	26.5	23.5	21.0	18.5	18.0	16.5
29	12.0	10.0	15.5	13.0	22.5	18.0	27.0	23.5	22.0	19.0	18.0	16.0
30	12.5	10.5	15.0	11.5	23.5	19.0	27.0	23.5	22.0	20.0	17.5	16.0
31	---	---	15.5	11.0	---	---	26.0	23.0	22.0	19.5	---	---
MONTH	13.0	6.0	17.0	7.5	23.5	10.5	27.0	13.0	26.5	17.0	23.0	11.0
YEAR	27.0	1.0										

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13289700 BROWNLEE RESERVOIR AT BROWNLEE DAM, IDAHO-OREGON STATE LINE

LOCATION.--Lat 44°50'08", long 116°53'58", in SE¼SE¼ sec.2, T.17 N., R.5 W., Washington County, Hydrologic Unit 17050201, at Brownlee Dam on Snake River near Idaho end of dam, 1.1 mi (1.8 km) upstream from Wildhorse River, 3.5 mi (5.6 km) downstream from Brownlee Creek, 10.5 mi (16.9 km) east of Halfway, Oreg., and at mile 285.0 (458.6 km).

DRAINAGE AREA.--72,590 mi² (188,000 km²), approximately.

PERIOD OF RECORD.--May 1958 to current year. Published as "at Idaho-Oregon State line" 1958-59.

GAGE.--Remote registering water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Idaho Power Co.). Prior to Feb. 2, 1959, nonrecording gage or levels to water surface at present site and datum.

REMARKS.--Reservoir is formed by earth-fill dam. Storage began May 5, 1958. Dam was completed in fall of 1958. Normal pool elevation, 2,077 ft (633.1 m). Water is used for power generation.

COOPERATION.--Water-stage recorder graph and capacity table furnished by Idaho Power Co.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,454,000 acre-ft (1,790 hm³) Aug. 6, 1962, elevation, 2,078.91 ft (633.652 m); minimum since full capacity was attained June 23, 1959, 441,200 acre-ft (544 hm³) Apr. 25, 1971, elevation, 1,975.20 ft (602.041 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,436,000 acre-ft (1,770 hm³) June 26, elevation, 2,077.67 ft (633.274 m); minimum, 842,000 acre-ft (1,038 hm³) Mar. 29, elevation, 2,025.91 ft (617.497 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

2,000.0	618,700	2,060.0	1,198,000
2,020.0	786,400	2,080.0	1,469,000
2,040.0	977,100		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1424000	1364000	1366000	1247000	1008000	918000	850000	1112000	1250000	1409000	1389000	1367000
2	1425000	1361000	1370000	1225000	1006000	915000	852000	1125000	1255000	1411000	1362000	1369000
3	1426000	1359000	1377000	1206000	1003000	914000	853000	1124000	1281000	1416000	1372000	1372000
4	1425000	1364000	1388000	1187000	1008000	912000	845000	1125000	1295000	1421000	1367000	1370000
5	1422000	1362000	1390000	1172000	1014000	912000	845000	1116000	1306000	1426000	1358000	1371000
6	1421000	1371000	1389000	1162000	1019000	914000	845000	1100000	1321000	1427000	1354000	1370000
7	1418000	1370000	1386000	1153000	1024000	912000	851000	1074000	1341000	1426000	1348000	1369000
8	1416000	1365000	1379000	1149000	1033000	910000	856000	1062000	1353000	1431000	1345000	1374000
9	1413000	1364000	1370000	1140000	1035000	910000	868000	1052000	1365000	1427000	1345000	1380000
10	1409000	1364000	1361000	1132000	1035000	910000	879000	1042000	1386000	1426000	1345000	1386000
11	1406000	1361000	1352000	1127000	1030000	910000	888000	1038000	1410000	1422000	1344000	1387000
12	1405000	1366000	1346000	1116000	1021000	910000	900000	1038000	1420000	1414000	1350000	1389000
13	1407000	1374000	1340000	1101000	1009000	912000	911000	1036000	1421000	1405000	1353000	1385000
14	1410000	1374000	1345000	1091000	998000	910000	926000	1033000	1422000	1400000	1359000	1381000
15	1409000	1372000	1368000	1081000	986000	912000	938000	1036000	1425000	1404000	1359000	1381000
16	1418000	1365000	1396000	1080000	972000	911000	918000	1042000	1425000	1400000	1363000	1383000
17	1416000	1358000	1405000	1083000	958000	885000	958000	1046000	1425000	1400000	1366000	1380000
18	1416000	1351000	1408000	1085000	945000	880000	961000	1052000	1428000	1409000	1364000	1376000
19	1411000	1342000	1408000	1087000	940000	878000	958000	1055000	1429000	1401000	1371000	1371000
20	1409000	1336000	1402000	1080000	936000	875000	957000	1062000	1423000	1402000	1374000	1365000
21	1410000	1330000	1394000	1074000	925000	870000	956000	1068000	1419000	1404000	1377000	1363000
22	1406000	1329000	1387000	1069000	925000	868000	961000	1076000	1415000	1408000	1377000	1363000
23	1401000	1324000	1385000	1059000	924000	859000	967000	1092000	1418000	1411000	1375000	1360000
24	1403000	1328000	1385000	1044000	921000	858000	973000	1113000	1429000	1410000	1378000	1360000
25	1401000	1334000	1375000	1031000	926000	862000	974000	1139000	1434000	1406000	1376000	1358000
26	1397000	1347000	1359000	1020000	928000	857000	990000	1157000	1433000	1401000	1372000	1355000
27	1393000	1349000	1343000	1014000	927000	851000	1018000	1179000	1430000	1397000	1375000	1350000
28	1380000	1356000	1325000	1018000	924000	843000	1042000	1187000	1424000	1390000	1371000	1351000
29	1377000	1361000	1306000	1020000	---	842000	1070000	1218000	1416000	1388000	1373000	1354000
30	1374000	1364000	1288000	1018000	---	847000	1095000	1225000	1411000	1390000	1371000	1361000
31	1367000	---	1268000	1014000	---	850000	---	1236000	---	1389000	1368000	---
MAX	1426000	1374000	1408000	1247000	1035000	918000	1095000	1236000	1434000	1431000	1389000	1389000
MIN	1367000	1324000	1268000	1014000	921000	842000	845000	1033000	1250000	1388000	1344000	1350000
(†)	2072.66	2072.44	2065.36	2043.74	2034.49	2026.80	2051.32	2062.93	2075.89	2074.26	2072.79	2072.24
(‡)	-55000	-3000	-96000	-254000	-90000	-74000	+245000	+141000	+175000	-22000	-21000	-7000

CAL YR 1977............ ‡ -14000
WTR YR 1978............ ‡ -61000

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

13290190 PINE CREEK NEAR OXBOW, OR

LOCATION.--Lat 44°57'13", long 116°52'21", in NE¼SW¼ sec.17, T.7 S., R.48 E., Baker County, Hydrologic Unit 17050201, 1.8 mi (2.9 km) south of Oxbow, and at mile 1.9 (3.1 km).

DRAINAGE AREA.--230 mi² (596 km²), approximately.

PERIOD OF RECORD.--November 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,850.48 ft (564.026 m) National Geodetic Vertical Datum of 1929 (levels by Idaho Power Co.). Prior to Aug. 24, 1967, nonrecording gage at site 1.7 mi (2.7 km) downstream at different datum.

REMARKS.--Records good. Diversions above station for irrigation of about 19,000 acres (7,690 hm²), (1966 determination.

AVERAGE DISCHARGE.--11 years, 383 ft³/s (10.85 m³/s), 277,500 acre-ft/yr (342 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,110 ft³/s (201 m³/s) Feb. 21, 1968, gage height, 9.82 ft (2.993 m); minimum, 10 ft³/s (0.28 m³/s) Aug. 17-24, 1977, gage height, 2.12 ft (0.646 m).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,600 ft³/s (45.3 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 15	0045	*4030	114	7.81	2.380	Apr. 27	1345	2880	81.6	6.88	2.097

Minimum daily discharge, 31 ft³/s (0.88 m³/s) Oct. 18-21; minimum gage height, 2.49 ft (0.759 m) Oct. 19-21.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Mar. 23 to Apr. 13)

2.4	26	4.0	409
2.6	43	5.0	985
2.8	65	6.0	1,810
3.0	95	7.1	3,060
3.4	189		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	53	213	150	269	357	1540	1650	671	737	64	59
2	48	57	506	130	273	337	1310	1610	719	654	54	63
3	43	51	743	142	409	329	1030	1130	869	637	53	59
4	41	51	484	210	418	333	950	1010	1010	786	54	55
5	39	84	374	219	400	418	882	909	1170	761	50	58
6	46	113	321	223	528	405	1030	804	1240	666	46	125
7	42	79	284	210	731	450	1120	779	1210	660	44	151
8	42	69	265	213	748	593	929	773	1160	737	43	177
9	41	65	222	257	788	889	849	811	1150	654	41	153
10	40	66	210	331	713	809	811	849	1110	660	41	183
11	40	61	222	345	609	792	830	922	950	593	40	192
12	38	61	249	353	595	817	780	843	862	504	39	169
13	37	64	837	380	479	895	725	792	862	432	59	156
14	36	69	1620	400	441	615	701	835	862	400	79	143
15	36	65	3000	475	436	550	883	930	748	374	75	130
16	35	88	1200	515	387	509	984	875	725	353	99	131
17	33	76	858	849	364	504	817	773	660	298	103	131
18	31	88	671	752	325	501	719	731	701	252	101	130
19	31	88	543	883	308	654	854	749	671	219	103	131
20	31	59	441	860	302	737	843	780	731	186	108	127
21	31	56	400	809	298	767	883	902	773	166	103	123
22	33	70	388	577	294	843	828	1070	737	156	99	123
23	36	72	349	531	295	985	804	967	773	141	97	112
24	35	93	317	448	368	1020	571	836	748	123	101	106
25	35	148	295	404	400	895	834	743	849	110	97	103
26	47	255	290	376	387	915	880	871	713	99	97	99
27	44	235	259	341	398	1020	2500	831	719	93	95	93
28	42	213	252	317	374	1150	2090	871	804	87	87	93
29	47	233	242	321	---	1220	1840	725	862	92	79	85
30	55	245	262	293	---	1220	1440	883	742	73	72	84
31	55	---	238	290	---	1240	---	860	---	66	70	---
TOTAL	1232	3019	16315	12251	12313	22809	29821	25373	25427	11769	2293	3570
MEAN	39.7	101	526	395	440	736	994	851	848	380	74.0	119
MAX	55	255	3000	849	798	1280	2500	1650	1240	786	108	192
MIN	31	51	210	130	269	329	571	831	660	66	39	55
AC-FT	2440	5990	32360	24300	24420	45240	58770	52310	51430	23340	4550	7080

CAL YR 1977 TOTAL 35098 MEAN 96.2 MAX 3000 MIN 10 AC-FT 69810
WTR YR 1978 TOTAL 167498 MEAN 459 MAX 3000 MIN 31 AC-FT 332200

13290450 SNAKE RIVER AT HELLS CANYON DAM, IDAHO-OREGON STATE LINE

LOCATION.--Lat 45°15'05", long 116°41'50", in SE¼SE¼ sec.33, T.3 S., R.49 E., unsurveyed (Willamette meridian), Wallowa County, Hydrologic Unit 17050201, Wallowa-Whitman National Forest, on left bank 0.2 mi (0.3 km) upstream from Hells Canyon Creek, 0.4 mi (0.6 km) downstream from Deep Creek, 0.6 mi (1.0 km) downstream from Hells Canyon Dam, 15.5 mi (24.9 km) northeast of Homestead, Oreg., and at mile 247.0 (397.4 km).

DRAINAGE AREA.--73,300 mi² (190,000 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,400.00 ft (426.720 m) National Geodetic Vertical Datum of 1929 (levels by Idaho Power Co.).

REMARKS.--Records good. Flow regulated by many reservoirs above station with a total usable capacity of more than 10,000,000 acre-feet (12,300 hm³), the most effective of which is Brownlee Reservoir 38 mi (61 km) upstream (see sta 13289700). Diurnal fluctuations caused by Hells Canyon powerplant. Diversions above station for irrigation of about 3,820,000 acres (1,550,000 hm²) of which 742,000 acres (300,000 hm²) are by withdrawals from ground water (1966 determination).

AVERAGE DISCHARGE.--13 years, 21,170 ft³/s (599.5 m³/s), 15,340,000 acre-ft/yr (18,900 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 75,800 ft³/s (2,150 m³/s) Apr. 15, 1971, gage height, 81.55 ft (24.856 m); minimum, 1,580 ft³/s (44.7 m³/s) Mar. 19, 1967, gage height, 59.9 ft (18.26 m); minimum daily, 4,360 ft³/s (123 m³/s) May 8, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 44,900 ft³/s (1,270 m³/s) May 6, gage height, 75.71 ft (23.076 m); minimum, 8,440 ft³/s (239 m³/s) July 15, gage height, 64.47 ft (19.650 m); minimum daily discharge, 8,680 ft³/s (246 m³/s) Nov. 29.

REVISIONS.--Revised figures of discharge for water years 1969, 1970, 1972, 1973, 1974, 1975, and 1976 are given herein. They supersede figures published in WSP 2134 and the reports for those years. The revised maximum and minimum discharges are shown in a following table, followed by tables of daily discharge and monthly computations.

CORRECTIONS.--Cal yr 1970 Total 7955670 Mean 21800 Max 46500 Min 9390 Ac-ft 15780000
Cal yr 1976 Total 8921180 Mean 24370 Max 57500 Min 8840 Ac-ft 17700000

	Maximum					Minimum				
		Discharge		Gage height			Discharge		Gage height	
Water year	Date	(ft³/s)	(m³/s)	(ft)	(m)	Date	(ft³/s)	(m³/s)	(ft)	(m)
1969	Apr. 12, 1969	53100	1500	77.17	23.521	Aug. 27, 1969	9020	255	64.66	19.708
1970	Jan. 29, 1970	47300	1340	76.24	23.238	July 24, 1970	7530	213	64.01	19.510
1972	Mar. 21, 1972	73500	2080	81.33	24.789	Aug. 10,13, 1972	9160	259	65.00	19.812
1973	Jan. 7, 1973	29100	824	72.13	21.985	Mar. 24, 1973	3540	100	62.00	18.898
1974	Apr. 21, 1974	62600	1770	79.79	24.320	Aug. 2, 1974	9480	268	64.79	19.748
1975	Apr. 30, 1975	59000	1670	78.53	23.936	Aug. 8, 1975	8180	232	64.54	19.672
1976	Apr. 23, 1976	58400	1650	78.86	24.037	July 19, 1976	7830	222	64.45	19.644

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14400	14200	14100	26400	29600	37400	50600	28400	13800	17700	11200	9800
2	14400	14200	20700	27000	30300	37200	50100	25300	16000	17700	11600	13000
3	14200	15700	20200	26800	30300	37400	48600	17600	15800	15900	11000	14600
4	14200	17600	19200	25700	29000	37000	48500	17600	15700	13900	10300	15000
5	13900	16900	17900	19700	27100	26700	48600	19700	15700	13300	10800	15000
6	12200	18700	18100	25200	27300	42600	48800	32700	14700	11900	11200	13300
7	15300	19700	15600	25400	27500	38000	48300	38700	12800	12000	12900	11200
8	14100	22500	12200	24800	27300	32500	48700	39000	12900	12000	14600	14000
9	13200	19100	19000	26800	26900	32600	48800	39100	18700	12000	11500	14400
10	15200	11400	16300	27600	26500	32700	50300	39200	22500	12200	10000	14600
11	15600	18100	18300	27700	28100	37600	51600	39200	26900	12000	11300	14500
12	13500	[illegible]700	17000	27300	27700	41800	52000	36000	31100	12100	10700	14400
13	11200	12800	16600	28700	27900	41800	51800	30800	31000	11400	11100	11500
14	14700	13300	13400	29300	29100	41800	52100	29700	31100	10500	14800	10600
15	14700	15200	12700	22800	27900	41600	52100	29900	30900	10000	14700	11200
16	14500	18500	17200	26400	28000	41500	51600	30000	28400	10200	12000	12700
17	16500	19000	19700	21900	35300	41400	44900	30100	23700	10100	10200	14700
18	17100	21000	20800	16600	40700	41600	38300	30100	18900	10000	13600	14400
19	15600	21600	22800	17100	44700	31900	38500	30100	14000	9990	13200	13200
20	13600	19100	21900	23500	43600	28100	38600	31400	12400	9980	14300	11500
21	20600	16900	24300	27300	34600	31600	38300	30200	12700	10100	14600	10700
22	17200	15300	23600	35300	36800	34800	38000	23900	12800	10000	13200	15100
23	19600	12400	27700	30100	39600	35200	37700	22900	13400	10100	10800	16400
24	19800	13800	20500	30100	39400	38500	37600	22700	15800	9950	9960	16200
25	18600	18200	20400	30300	38800	40300	34000	19800	19700	10000	11100	16600
26	11600	16900	20800	30300	37400	31700	28500	18200	21300	10100	10800	17200
27	10600	18700	24800	30300	37400	28100	28500	18100	20500	10000	9910	16900
28	13000	12300	23000	30300	37400	36000	28400	17800	21300	10000	9570	13500
29	13900	13100	23900	30300	---	46000	28400	15700	21900	10000	9570	16700
30	14900	15400	26800	30300	---	46600	28400	14100	20400	10100	9710	17800
31	15500	---	28200	30400	---	48800	---	14100	---	10400	9610	---
TOTAL	463400	501300	617700	831700	916200	1161000	1290600	832100	586800	355620	359830	420700
MEAN	14950	16710	19930	26830	32720	37450	43020	26840	19560	11470	11610	14020
MAX	20600	22500	28200	35300	44700	48800	52100	39200	31100	17700	14800	17800
MIN	10600	11400	12200	16600	26500	26700	28400	14100	12400	9950	9570	9800
AC-FT	919200	994300	1225000	1650000	1817000	2303000	2560000	1650000	1164000	705400	713700	834500

CAL YR 1968 TOTAL 5509160 MEAN 15050 MAX 34100 MIN 4750 AC-FT 10930000
WTR YR 1969 TOTAL 8336950 MEAN 22840 MAX 52100 MIN 9570 AC-FT 16540000

13290450 SNAKE RIVER AT HELLS CANYON DAM, IDAHO-OREGON STATE LINE--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15700	14700	17300	16600	26500	23300	19800	23500	21600	39400	12000	12700
2	14000	13700	17200	19900	26600	21500	23700	19600	21900	42300	12000	13600
3	14500	14500	18100	22500	27700	21000	21200	14500	24300	39100	11800	12800
4	14100	15600	19800	16500	29000	19700	15100	18800	29400	31000	11700	13900
5	11700	15900	18000	23400	27700	16900	15100	18900	31000	22300	11700	11000
6	14200	15000	15300	22500	27000	16600	13700	19100	30500	20700	11800	10500
7	14700	14800	13800	21600	26400	19600	13800	23700	30500	20500	11700	11400
8	15900	14100	18500	20800	25700	21500	13100	28700	30500	19800	11300	17600
9	18000	13600	19200	20900	22200	20100	12200	28600	32600	17600	10900	20100
10	19000	16000	17300	17200	21300	20200	15100	28500	35700	14100	10300	18600
11	18000	17500	18700	18500	21100	20800	14800	28400	35600	13100	9950	18900
12	16500	15100	18000	20700	20600	19400	15200	29500	32200	13100	10100	16300
13	19200	14200	15000	17500	23400	19500	22500	29800	30100	13100	9920	16100
14	17700	14200	14200	16400	33000	21500	24400	30100	29700	13200	9890	18200
15	16700	15000	16300	16300	43700	21300	28300	29900	33300	12900	9750	13800
16	16800	14600	18800	21300	46100	21900	28200	29700	36900	12500	9790	16500
17	15300	15400	17700	20200	46000	21300	25300	29600	37400	12100	9890	13500
18	14500	15700	17300	15700	44800	21900	25500	32300	38800	12300	10300	13900
19	12800	14800	14700	19100	35700	21600	25500	35700	39300	11700	10500	13400
20	14600	15000	11700	20600	34800	20800	26200	36100	39700	11300	10900	11500
21	16100	15800	11300	21400	32900	19700	26300	36100	39400	11000	11000	16300
22	15900	14600	17700	23500	32500	19200	27300	37400	39300	10200	10600	17400
23	16100	13800	16600	28900	32300	20800	24600	38800	39400	9570	10100	20400
24	15400	14900	14100	28700	31300	21100	22000	38800	33900	9390	10100	20100
25	14600	15400	13400	39900	30700	18900	20400	42300	27600	9560	12400	18300
26	16200	14200	14800	45900	27600	14500	21800	38700	27800	9560	12500	16600
27	16700	13600	15800	46500	25900	17500	21400	30000	29300	10500	12800	15900
28	16100	14300	15800	46400	25700	17700	23300	26200	31200	11200	11700	16400
29	15200	15000	16000	46500	---	18100	24800	22900	34800	11300	10700	17100
30	13900	15900	16700	38200	---	20700	22800	21700	36700	11800	10500	14900
31	13900	---	18900	29300	---	18900	---	21500	---	11900	10100	---
TOTAL	484000	446900	508000	783400	848200	617700	633400	889600	980400	508080	338690	467700
MEAN	15610	14900	16390	25270	30290	19930	21110	28700	32680	16390	10930	15590
MAX	19200	17500	19800	46500	46100	23300	28300	42300	39700	42300	12800	20400
MIN	11700	13600	11300	15700	20600	14500	12200	14500	21600	9390	9750	10500
AC-FT	960000	886400	1008000	1554000	1682000	1225000	1256000	1765000	1945000	1008000	671800	927700

CAL YR 1969 TOTAL 8193450 MEAN 22450 MAX 52100 MIN 9570 AC-FT 16250000
WTR YR 1970 TOTAL 7506070 MEAN 20560 MAX 46500 MIN 9390 AC-FT 14890000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
MEAN VALUES

1	16200	14100	20800	21700	39400	44200	60500	64900	37900	50400	11200	14500
2	16600	18600	22100	22600	39400	39600	61000	65000	37000	50400	11700	16300
3	14300	19600	21200	23400	39200	39600	62400	63000	35800	50200	11000	16100
4	14700	18800	20800	25000	39400	36700	62700	60000	34100	47400	10700	14500
5	16900	18400	19100	24700	39300	39000	62400	59300	32900	45100	11000	13600
6	16800	18800	19500	24300	39300	38900	62000	60700	32900	42000	11400	13500
7	16600	14800	22600	24300	39200	39000	62200	62400	33400	32600	10400	16000
8	16100	14300	24300	22400	40800	38500	62400	60000	34600	25500	11000	16700
9	15900	19200	24100	16300	43500	39100	65000	63200	34800	22600	10500	17000
10	14100	17700	26200	21300	43500	39000	70100	65400	34900	23100	11200	16500
11	11200	18600	28700	22400	43400	39100	68500	60900	34900	24000	11400	15800
12	15400	19900	29300	21900	43400	39000	70400	46100	34900	22600	11800	13900
13	16700	20100	28200	22200	43700	38200	71500	40200	34900	19300	12000	14300
14	16300	18700	29100	23500	43900	23600	73400	39600	35100	17200	11300	15200
15	17300	17600	30300	24100	43800	39100	73700	40300	35000	17100	10600	15200
16	15400	23800	29500	26900	47000	39400	69300	40800	35500	14200	10700	16400
17	16500	25400	29500	31400	48200	39500	65400	41100	37200	14200	10700	18000
18	17000	25500	27600	39300	48200	39200	65200	43900	37700	12200	11200	15500
19	18300	25700	25900	44800	48200	39100	59300	48500	38600	12600	11600	14100
20	17800	25200	25900	47900	48400	39300	53600	51000	39600	13600	11600	15800
21	17400	25300	26800	52600	48500	39300	53600	49200	39900	13500	11100	15900
22	19400	23500	25300	57800	48700	40600	57600	47400	39700	13700	10500	15700
23	19700	24900	26200	53700	48600	46500	59900	47500	39400	14100	10600	16600
24	20700	23100	24200	53500	48600	47700	60000	47600	40500	14000	10900	16100
25	22300	20200	25100	53500	50100	48100	57300	46300	43400	14000	11900	15000
26	22000	13900	22900	51200	48400	48400	32900	44600	49700	13000	9090	13900
27	17700	19300	22000	48700	48300	48500	32200	43000	52800	12600	10900	13600
28	17400	13700	24400	48600	48500	48300	58800	41700	53000	12300	11800	16200
29	16900	12400	25800	45100	---	49600	65000	40800	52000	12400	11900	16200
30	15400	19900	24000	40600	---	55100	64900	39600	50900	13400	11900	15400
31	14000	---	23100	39400	---	58300	---	38800	---	10900	12800	---
TOTAL	523000	591000	774500	1075100	1250900	1299500	1843200	1562800	1173000	700200	346390	463500
MEAN	16870	19700	24980	34680	44680	41920	61440	50410	39100	22590	11170	15450
MAX	22300	25700	30300	57800	50100	58300	73700	65400	53000	50400	12800	18000
MIN	11200	12400	19100	16300	39200	23600	32200	38800	32900	10900	9090	13500
AC-FT	1037000	1172000	1536000	2132000	2481000	2578000	3656000	3100000	2327000	1389000	687100	919400

13290450 SNAKE RIVER AT HELLS CANYON DAM. IDAHO-OREGON STATE LINE--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13800	28000	25500	26100	45600	44800	63900	46900	20900	21200	12000	12700
2	12300	29500	25700	25100	45500	46700	64100	37000	20600	20900	9850	12400
3	12300	28100	26200	26500	43500	52100	62300	34700	16100	18400	9730	10500
4	17500	26200	23300	26900	36300	54500	59200	31000	16000	17200	9810	11600
5	21800	28100	23400	26800	38400	54200	59100	30300	16400	16700	9870	12800
6	24400	27500	24900	27800	38400	54100	59100	30300	15800	14400	10400	13700
7	25500	27900	26900	26600	38400	56000	59100	30600	15800	13600	11400	14600
8	26100	27800	27700	26400	38500	59100	58900	34600	15900	12500	12200	15000
9	25100	27900	27300	26700	37000	59200	58700	38700	15700	10500	11700	14000
10	21700	28000	25200	25900	34900	60100	57500	39500	16000	10100	11900	10900
11	24000	27500	26300	26400	35000	63700	53200	37400	16200	10100	12800	11900
12	25100	26400	26900	25500	35100	63800	48200	36600	16200	10300	12500	13500
13	24600	25500	27100	25600	35200	63800	47600	36900	18100	11200	9770	14600
14	25600	26000	26400	27400	35200	63800	47600	36600	25800	11800	9850	16500
15	25900	23900	26100	27700	37500	63000	47600	36600	34100	11400	9790	18000
16	24800	25500	26300	25500	40000	64900	47900	37000	40300	11300	10400	16500
17	24500	25900	25300	25700	37300	68000	46500	37000	42500	10600	11500	16700
18	23000	25300	24700	25400	25400	68500	44900	36900	42800	10500	11600	17500
19	25000	26200	25300	26300	24800	68500	44400	36900	41600	10300	12400	16400
20	25600	25800	25400	28500	27400	68500	39400	36900	40100	10800	10600	16300
21	25400	25000	25500	30900	38700	70100	32700	37000	39500	12300	12300	16400
22	26800	26400	25000	31200	41900	70500	30300	37000	35200	11800	13700	15700
23	26300	24100	24700	30900	44400	68000	30300	29700	28700	9770	14200	15000
24	27300	23900	24100	33700	44500	70800	30200	24600	24600	10700	15600	14300
25	27000	20700	23700	43900	45300	70800	32500	24700	24800	12700	15500	15000
26	26800	20500	23600	44500	45800	70800	41600	24600	26600	13200	15900	16800
27	27100	20700	26200	44500	46000	69000	48400	24700	26800	13200	13100	15300
28	28000	20700	26300	44800	45800	64300	48900	24700	24600	11200	15400	16600
29	28200	23600	26200	45200	45600	64200	49000	24600	24100	10400	14800	15900
30	28600	25000	26700	45100	---	64200	49100	24600	22800	9710	14200	17500
31	28100	---	25900	45400	---	64200	---	21400	---	12000	12500	---
TOTAL	748200	769600	793800	968900	1129400	1944200	1462200	1020600	764600	390780	377270	444600
MEAN	24140	25650	25610	31250	38940	62720	48740	32920	25490	12610	12170	14820
MAX	28600	29500	27700	45400	46000	70800	64100	46900	42800	21200	15900	18000
MIN	12300	20500	23300	25100	24800	44800	30200	21400	15700	9710	9730	10500
AC-FT	1484000	1527000	1575000	1922000	2240000	3856000	2900000	2024000	1517000	775100	748300	881900

CAL YR 1971 TOTAL 12026190 MEAN 32950 MAX 73700 MIN 9090 AC-FT 23850000
WTR YR 1972 TOTAL 10814150 MEAN 29550 MAX 70800 MIN 9710 AC-FT 21450000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
MEAN VALUES

1	16800	18600	21700	25200	25800	25900	15900	15100	15000	8420	9660	9640
2	18000	20100	18900	26000	25600	25800	17800	15700	13900	8420	9310	8900
3	19100	20400	18700	26000	25700	24500	17800	15600	11200	8540	9330	8900
4	18000	18800	23600	26600	25500	23400	17600	15600	16800	8560	9040	12000
5	17200	20100	23200	26300	25500	25500	17600	15100	15500	8600	8780	14100
6	18600	22300	23200	26900	24500	23900	18100	13000	15800	8680	8940	14500
7	21900	24300	24400	27100	24300	25400	18200	14700	15300	8500	8840	14200
8	21900	25700	23700	28900	24000	25100	17000	16400	14400	8460	10500	11000
9	22500	25600	24500	26300	23600	25900	17800	15800	10600	10400	11800	12200
10	24200	26000	23600	25100	22800	24900	16600	15300	9660	11000	11200	12600
11	25400	25100	23400	24700	23200	24000	14500	14300	10300	10300	10200	13000
12	23800	24300	23500	23500	23200	23100	14400	11100	11000	7610	8860	12000
13	22000	25900	23300	23900	24800	22500	14400	9870	12600	7490	11300	13200
14	22200	22100	23100	21300	24700	22800	14800	13100	11000	7610	11100	12400
15	21700	22000	24100	24900	25700	21000	14600	14300	10900	7530	10400	10200
16	22700	22600	23400	24600	26700	18300	14700	16200	11300	7470	10900	9270
17	19400	22700	22500	26000	26800	15700	14700	16200	11600	7490	10700	12400
18	20700	21500	22600	26300	26700	15300	16900	13700	14400	7470	8800	10900
19	22200	19600	23700	26300	26600	21900	20300	10300	14300	7490	8860	13600
20	24600	22200	24800	26200	24200	23200	20800	9660	12300	7390	8800	13300
21	23200	20700	24600	25900	24500	21300	21000	12900	13100	7320	9020	16000
22	24000	22800	25100	26300	23600	14200	20400	10600	15400	7260	11200	13600
23	24100	21400	24200	25700	21700	9100	20000	11300	11700	7300	11000	14100
24	23600	22900	23800	26000	16700	5580	19800	14100	9580	7320	9580	14800
25	21900	21800	21800	26300	16700	11200	19800	14500	15000	7510	9410	15700
26	22400	21600	24600	26300	22100	20600	18300	11100	16600	8360	9370	16700
27	20800	23600	25700	25600	22900	18900	16800	9710	16200	10500	9310	17200
28	18400	22700	26600	25800	24100	19400	13400	9460	16500	10000	8960	18000
29	18000	23100	24900	26000	---	17300	13400	15100	15000	8100	9100	17400
30	17700	23000	26100	25500	---	16800	15400	15300	9920	8660	8940	15800
31	17800	---	25600	26000	---	17800	---	17000	---	9980	8920	---
TOTAL	654800	673500	733100	797500	672200	630280	512800	422300	396860	259740	302130	397610
MEAN	21120	22450	23650	25730	24010	20330	17090	13620	13230	8379	9746	13250
MAX	25400	26000	26600	28900	26800	25900	21000	17000	16800	11000	11800	18000
MIN	16800	18600	18700	21300	16700	5580	13400	9460	9580	7260	8780	8900

13290450 SNAKE RIVER AT HELLS CANYON DAM, IDAHO-OREGON STATE LINE--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17500	14600	19200	22100	36800	36100	49200	61000	25500	35200	11300	10400
2	15000	16900	20600	23900	36700	36000	54200	61000	25600	34300	10300	13300
3	15600	12700	20200	21300	25500	35600	57900	50200	25600	34300	10100	15100
4	14800	11700	21400	20200	24200	36100	59300	48600	25700	31400	10100	13900
5	15200	14000	21000	19000	24200	36300	60100	48200	25800	30500	12800	10400
6	12700	15100	20200	19700	24100	35800	61300	46500	24300	26500	11400	12400
7	12700	17000	19300	22100	24100	32500	61400	47100	21200	26900	11000	10300
8	13400	19500	22500	22100	24200	35900	61500	49200	21000	28000	10600	10200
9	13100	19000	21800	21900	24000	38900	61300	52100	19600	29600	10400	10200
10	12700	18400	20900	22100	24000	38900	61000	53400	21200	27400	10400	14000
11	13200	16300	20500	22400	24100	37700	61000	53700	21300	25700	10400	13900
12	15200	19500	20400	18000	24100	36900	61300	51100	23800	24500	11400	14200
13	15200	19800	20800	15000	24200	38100	61300	48200	26600	23300	11700	15700
14	16100	20500	19800	17600	27000	40200	61000	46000	29600	21800	11200	15300
15	14400	22600	19300	19600	28500	42900	61500	44200	29600	21600	11800	11200
16	14000	25300	17000	25000	28400	47100	61000	40900	29700	19500	11700	15200
17	14800	21600	17500	25200	28400	47100	61400	37800	33200	18400	13100	14300
18	13700	24300	21500	28700	28600	47000	61600	37600	41400	15200	11300	16100
19	13600	22000	21500	38000	28700	46800	61600	35700	43900	14800	12900	15200
20	13600	23100	21200	45100	32100	46900	61000	32700	43800	12600	12900	15900
21	11600	18000	21700	37800	35300	46400	60900	30000	43300	12300	13900	15600
22	12800	16200	19100	28000	35300	46400	52600	29500	42600	13200	12700	14400
23	12200	17700	22400	31400	35400	46800	45900	29300	42000	13300	13300	14800
24	12800	18100	19100	33600	35400	46900	45900	26700	41900	13300	10700	15500
25	14400	18400	19900	34000	35400	47000	46000	28400	42600	13300	10500	16200
26	14900	19700	23200	34200	35900	46600	52800	28500	45600	13200	10400	16900
27	11800	19800	22100	34400	36100	46500	53700	28700	45500	12800	10700	18200
28	11700	19800	15200	35000	36100	46500	53900	28700	42700	11800	12900	12800
29	11900	20400	14300	36700	---	46500	59900	25100	41500	11700	15000	10400
30	11900	20400	14300	36700	---	46500	61100	25000	36400	11400	12100	10200
31	12700	---	22300	36800	---	46600	---	25200	---	11800	10900	---
TOTAL	425400	562400	620200	847600	826800	1305700	1732600	1250300	982500	639600	359900	412200
MEAN	13720	18750	20010	27340	29530	42120	57750	40330	32750	20630	11610	13740
MAX	17500	25300	23200	45100	36800	47100	61600	61000	45600	35200	15000	18200
MIN	11700	11700	14300	15000	24000	32500	45900	25000	19600	11400	10100	10200
AC-FT	843600	1116000	1230000	1681000	1640000	2590000	3437000	2480000	1949000	1269000	713900	817600

CAL YR 1973 TOTAL 5999420 MEAN 16440 MAX 28900 MIN 5580 AC-FT 11900000
WTR YR 1974 TOTAL 9965200 MEAN 27300 MAX 61600 MIN 10100 AC-FT 19770000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

1	13300	16900	16600	19100	23600	26100	34700	58100	31600	22200	8900	11800
2	16200	18200	19400	21200	18800	25400	34700	58400	29200	20100	8680	16600
3	19700	13400	15200	21000	22100	28700	34700	57700	29100	19100	8700	14200
4	17000	19300	16400	22600	22900	30100	36700	57700	29100	16700	8820	15400
5	13900	20400	18200	20200	24400	30500	42600	55400	29200	16600	8720	15400
6	11900	19300	18400	24600	22900	30700	42300	48400	29700	16200	9830	14800
7	14000	20100	16500	21500	21600	33000	42500	45600	28700	19200	9790	13200
8	14800	21200	17400	22200	22200	33200	42500	43200	28300	18700	10500	16500
9	17000	20300	19900	23300	19700	34400	42600	45600	28300	19400	10200	16700
10	15400	18600	18500	23400	24300	36100	43000	49100	28900	16900	10300	17000
11	17700	19100	19200	24100	23900	36800	42700	51600	28800	15800	10300	18200
12	18200	20100	18600	23300	23700	37800	42800	52100	29100	15000	9000	17800
13	12000	16900	20200	24500	25800	38000	42600	52600	28600	15800	9040	16400
14	17200	16500	19300	23000	29000	38100	42700	53200	26100	16800	9120	14900
15	19100	14700	19700	22400	28900	36600	44300	53100	24600	18800	9750	15000
16	18800	14700	18600	22700	29000	30200	47900	52900	24000	17100	10100	17900
17	18900	12300	19200	23500	28900	30100	48100	52700	22800	16500	10100	17700
18	16800	14300	21500	21400	29200	30300	47900	52800	21400	16500	10200	17800
19	12000	16300	20600	17900	28400	31100	48100	52800	24300	14200	11500	17700
20	14600	15800	20900	22400	30100	31900	48200	52400	28700	13600	13500	10700
21	19800	13400	21300	22000	33000	35300	53200	52500	28900	12000	13600	9540
22	19300	15900	22400	24100	32900	32200	54200	52900	30100	12000	15200	13400
23	20600	17500	21900	22400	30000	31400	56100	53000	32500	11100	15200	13100
24	19100	18600	20800	22800	29600	31000	57900	51200	34500	10500	15400	13300
25	18800	18400	10700	23300	29700	31000	58000	49400	32700	9810	15400	12900
26	20800	17500	20900	21800	29900	33900	58000	47900	32100	9460	14800	17900
27	20300	16800	20100	23100	29500	39400	58000	47600	31900	9330	15300	16200
28	22000	16500	18200	22200	30200	39600	57700	44600	30900	10600	13600	14000
29	20700	22700	18400	22500	---	39400	57800	42800	27300	11400	12800	16900
30	20100	20100	21700	22400	---	38400	58000	42000	26600	9310	11800	17400
31	19400	---	20700	21900	---	35000	---	38000	---	9290	10800	---
TOTAL	539400	527800	591400	692700	744200	1035700	1420500	1567300	858000	460000	350950	460340
MEAN	17400	17590	19080	22350	26580	33410	47350	50560	28600	14840	11320	15340
MAX	22000	22700	22400	24600	33000	39600	58000	58400	34500	22200	15400	18200
MIN	11900	12300	10700	17800	18800	25400	34700	38000	21400	9290	8680	9540
AC-FT	1070000	1047000	1173000	1374000	1476000	2054000	2818000	3109000	1702000	912400	696100	913100

13290450 SNAKE RIVER AT HELLS CANYON DAM. IDAHO-OREGON STATE LINE--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18000	17700	27200	23100	30500	35000	42100	43000	30900	13100	9850	13800
2	18500	17600	21600	23600	30500	35100	42200	44800	29600	10300	10800	13700
3	18200	18500	21900	22900	30500	32000	36500	45700	29600	9850	11900	11600
4	15300	15900	21000	22800	30500	30900	31200	46600	28600	9430	16900	9810
5	13800	20500	24100	22300	30500	28600	31100	46000	29900	9390	17300	9540
6	16900	16800	23800	22400	30600	28400	31200	45600	37200	10100	18600	9760
7	17400	18800	23900	21800	30500	28000	31100	44600	37100	10000	17000	9980
8	16600	18200	25900	21300	30500	28900	31100	42300	37600	9230	18800	9770
9	15200	20500	26400	23800	30500	28400	36600	42700	30800	9870	15700	11600
10	16700	21000	27700	25300	30500	26300	47400	41800	28600	8940	15300	14000
11	16000	20300	26600	26000	30600	27900	53400	40500	24600	9080	13500	14300
12	15400	19500	25900	23800	30600	26800	53900	38200	24400	8840	11200	13900
13	15700	17300	26000	23600	30600	27200	54700	38300	24300	10000	10700	16300
14	16800	16800	23200	24500	30800	25800	54800	37500	24500	8940	9940	18200
15	16900	15000	24100	24300	30800	28300	54500	37200	26300	9000	10200	19600
16	17600	11100	21600	24700	30800	30300	54600	37200	26800	9460	10400	19600
17	15400	18000	21800	24800	30800	31700	54900	35200	25400	9900	10500	20800
18	15900	21600	22500	24000	30500	31800	54900	32400	30400	9770	15000	21800
19	14000	19300	24500	24400	30700	31400	55000	32300	29400	11100	15900	21600
20	18100	19100	25000	24300	31000	30900	54800	32200	28100	13000	16700	21100
21	17600	17800	21900	27600	31000	30900	55200	31300	27300	11500	17600	21500
22	18500	18300	20600	28800	30900	31000	54400	30800	25100	12600	14800	20600
23	16200	12900	21100	27900	30900	31000	55500	30600	21300	12200	13000	18800
24	15100	18400	20000	28600	31000	31000	57500	31000	19400	10900	13200	18400
25	16900	21100	20000	28300	30900	31100	57400	31600	18100	10100	15300	17700
26	16400	23400	21000	28100	30900	35900	57300	31800	18600	11700	16000	17300
27	17200	21300	21700	29700	30900	42600	57500	31700	19500	11700	15800	17400
28	17100	23800	24400	30600	31500	42700	49400	31900	17600	11900	14500	19300
29	16200	22600	23400	30400	34100	42600	43500	31700	16200	11100	13800	17800
30	15200	23900	21800	30600	---	42500	42400	31700	15000	9730	13300	19000
31	15400	---	21700	30400	---	42400	---	31700	---	10000	13400	---
TOTAL	510200	567000	717300	794700	894400	997400	1436100	1149900	782200	322730	436890	488560
MEAN	16460	18900	23140	25640	30840	32170	47870	37090	26070	10410	14090	16290
MAX	18500	23900	27700	30600	34100	42700	57500	46600	37600	13100	18800	21800
MIN	13800	11100	20000	21300	30500	25800	31100	30600	15000	8840	9850	9540
AC-FT	1012000	1125000	1423000	1576000	1774000	1978000	2849000	2281000	1551000	640100	866600	969100

CAL YR 1975 TOTAL 9384190 MEAN 25710 MAX 58400 MIN 8680 AC-FT 18610000
WTR YR 1976 TOTAL 9097380 MEAN 24860 MAX 57500 MIN 8840 AC-FT 18040000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

1	17500	15700	19600	16700	14200	11100	11700	5450	6960	8810	6270	7130
2	13400	15400	20200	20300	14400	11100	9030	13100	6980	8940	6100	5730
3	11900	15600	19500	21700	14300	11400	10200	10900	5780	8940	7850	5700
4	16700	17100	21200	18300	15400	12300	8940	8310	5760	8850	7140	5650
5	16100	15900	20300	17900	14000	14200	8900	8110	6200	5900	5700	5680
6	18300	19300	22100	19900	14500	13300	8520	6300	11400	7110	5730	8480
7	15800	15700	20900	19100	15100	13500	7930	4630	9580	7010	5780	7800
8	16000	17400	19500	21200	17000	12200	7740	4360	9250	6770	5780	6870
9	15600	16500	20300	18000	12800	14300	7850	4430	7310	6270	6590	5310
10	18500	16300	21800	21400	13500	15200	9220	4710	5760	5950	7990	5380
11	19300	17100	19900	19700	11100	12700	12300	7220	5710	6050	7180	5220
12	20100	18300	21000	20200	10600	13100	11300	6850	5710	7640	6150	5300
13	20100	17300	21400	15600	9540	13700	9760	5500	5660	8350	5880	6150
14	20000	18000	22000	15600	10600	16000	10100	5710	5650	7290	5780	7390
15	19800	17300	22400	15100	10300	15400	7280	5850	7010	5750	6750	6640
16	20900	15100	18300	15500	11100	15100	5730	5960	6960	5610	11800	5310
17	21500	13600	18100	18700	13300	13700	5730	6320	5780	5730	7870	5360
18	21400	14500	15200	19300	13400	15100	6440	6880	5810	6750	7160	5350
19	19000	15700	16100	17300	9270	15700	5660	6900	5830	5730	5730	5330
20	17200	16200	19500	16900	8830	12400	5630	5710	9450	6940	5730	6440
21	17000	16600	18700	16500	9650	14000	7520	5730	9960	7090	5780	8290
22	20400	16900	18600	17100	10900	11600	7290	5680	9510	8190	5810	8310
23	17700	17000	17000	14300	10200	10500	6450	5730	10100	8790	6520	7620
24	17500	16800	15400	17900	11000	12500	5630	5750	10700	6400	8030	8390
25	15000	14500	12000	17600	13400	12500	8850	6920	8940	5600	7430	8440
26	14100	18000	9900	19300	10900	12900	8900	7000	5830	5680	5730	8370
27	15800	22500	13400	16900	9850	14100	9960	5700	11200	7760	5750	8310
28	17400	21000	15700	18400	11800	18200	11600	5710	10500	7070	5800	8520
29	15200	20500	16100	15900	---	17000	10000	5700	9330	5560	5730	8960
30	12900	20000	17700	12500	---	14600	8390	5660	8740	5680	6540	9180
31	11900	---	18700	17000	---	15300	---	5660	---	5710	8110	---
TOTAL	534000	511800	572500	551800	340940	424700	254590	198440	233360	213920	206190	206610
MEAN	17230	17060	18470	17800	12180	13700	8486	6401	7779	6901	6651	6887
MAX	21500	22500	22400	21700	17000	18200	12300	13100	11400	8940	11800	9180
MIN	11900	13600	9900	12500	8830	10500	5630	4360	5650	5560	5700	5220
AC-FT	1059000	1015000	1136000	1094000	676300	842400	505000	393600	462900	424300	409000	409800

13290450 SNAKE RIVER AT HELLS CANYON DAM, IDAHO-OREGON STATE LINE--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9520	11300	11000	21700	16800	19900	32100	39200	17100	19600	10200	13200
2	9560	13200	11100	21900	15900	19800	36400	41100	17000	17200	9920	9350
3	11300	11900	9770	20400	16300	19700	30700	44300	12600	16600	12600	10300
4	9730	9020	9040	20700	14600	19400	33500	44400	12600	16800	10400	11400
5	11200	8820	13600	20800	12700	13700	29300	44300	17400	17000	13400	13500
6	11800	8720	14000	18600	15800	20800	26400	44500	15200	18800	11000	14200
7	11800	9370	14700	17500	20900	21000	25100	44300	16000	19100	12900	15500
8	13300	13300	17900	15800	24800	20700	24800	41400	18800	16300	11600	16200
9	10600	13100	18700	18800	23600	21700	24800	39400	19400	21900	9620	15700
10	13500	12300	16500	19800	24100	22000	25300	39400	12400	20600	9230	14300
11	11100	11800	15100	18300	25500	22900	25100	36400	12500	19700	9310	18100
12	11400	9410	17400	20200	23100	22300	25800	33000	19700	21700	9290	16200
13	10100	9430	15800	22800	24200	22800	25100	32300	22500	19600	9330	19300
14	10100	11000	15100	21100	23500	23300	24900	30700	22700	14700	9310	19400
15	10400	9540	19100	21500	24100	25400	25000	29100	22700	10600	9290	17500
16	9210	11100	22400	21700	23500	23500	25100	28400	22400	10400	9330	18900
17	10200	13800	22900	21700	22400	20800	26700	28100	22000	11800	9350	18100
18	10500	14700	18500	22600	20800	19200	29200	26700	19100	10600	9290	20900
19	11500	15600	16800	23900	19200	19700	29200	25200	21600	11900	9310	16500
20	10400	12400	17600	23700	16600	22200	29300	21500	21700	10900	9230	18000
21	9920	16400	17200	21600	20700	25000	29600	21300	21700	9350	12500	18000
22	11000	12400	13500	17300	15500	27000	29600	19800	19000	9330	12700	16800
23	11900	11400	12300	22600	14600	28500	29600	16900	18200	9750	14100	15700
24	10300	10200	14500	21900	16700	28600	29300	16900	16800	11200	13200	15200
25	11300	10200	18000	20800	13600	29100	29300	17200	13600	10900	12700	17900
26	13200	10100	22400	21400	13700	29000	29400	17200	20500	11000	11700	17800
27	13500	10100	20600	19400	19000	28900	33000	17000	21200	11000	11100	15900
28	14300	9290	23900	12300	20300	29000	38400	17000	21600	14500	14800	15400
29	12500	8680	23400	12800	---	29000	39000	17100	21000	11800	12400	14600
30	12500	10100	23700	15500	---	29100	38800	17000	21800	9310	13300	12800
31	14000	---	22200	16600	---	30300	---	17100	---	14100	13200	---
TOTAL	351640	338680	528710	615700	542500	734300	879800	908200	560800	448240	345610	476650
MEAN	11340	11290	17060	19860	19380	23690	29330	29300	18690	14460	11150	15890
MAX	14300	16400	23900	23900	25500	30300	39000	44500	22700	21900	14800	20900
MIN	9210	8680	9040	12300	12700	13700	24800	16900	12400	9310	9230	9350
AC-FT	697500	671800	1049000	1221000	1076000	1456000	1745000	1801000	1112000	889100	685500	945400

CAL YR 1977 TOTAL 3849580 MEAN 10550 MAX 23900 MIN 4360 AC-FT 7636000
WTR YR 1978 TOTAL 6730830 MEAN 18440 MAX 44500 MIN 8680 AC-FT 13350000

13290450 SNAKE RIVER AT HELLS CANYON DAM, IDAHO-OREGON STATE LINE--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1970 to current year.
REMARKS.--Miscellaneous chemical data published for water year 1974.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (JTU)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)
OCT 28...	1000	17100	495	7.7	10.5	15.0	1	--	6.8	70	K1
NOV 15...	1015	12100	543	8.0	9.0	12.0	2	--	9.2	90	--
DEC 29...	1045	25800	516	7.8	5.5	6.5	1	--	9.1	77	K1
JAN 25...	1200	21500	*477	8.2	3.5	4.0	2	--	9.2	74	K3
FEB 15...	1300	24100	*451	8.1	7.0	4.0	4	--	10.1	81	K1
MAR 22...	1100	25900	321	8.4	14.5	7.0	4	--	10.1	87	<1
APR 19...	1300	29100	278	8.0	19.0	11.0	4	--	8.9	85	47
MAY 22...	1045	19700	242	8.3	13.5	13.0	--	4.0	10.4	103	K14
JUN 21...	1100	24000	273	8.3	26.5	18.0	--	1.1	7.7	85	K2
JUL 26...	1030	2260	259	7.6	29.5	19.8	--	.60	6.9	79	K12
AUG 22...	1000	13400	266	7.9	19.0	20.0	--	1.4	6.3	72	K1
SEP 26...	1115	20300	411	7.8	22.0	18.0	--	.50	5.0	55	K2

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)
OCT 28...	53	190	34	42	20	47	35	1.5	5.5	190	0
NOV 15...	76	180	8	39	20	48	36	1.6	5.3	220	0
DEC 29...	K9	180	4	41	20	44	33	1.4	5.3	220	0
JAN 25...	K12	170	17	41	17	35	30	1.2	4.3	190	0
FEB 15...	<1	160	0	38	15	34	31	1.2	4.3	200	0
MAR 22...	K17	160	35	39	14	31	30	1.1	3.9	150	1
APR 19...	49	100	10	25	10	20	29	.9	3.1	110	0
MAY 22...	K14	120	13	35	8.6	19	25	.7	2.9	130	0
JUN 21...	K17	100	0	24	9.9	22	31	1.0	3.1	130	0
JUL 26...	190	99	9	24	9.5	21	31	.9	3.1	110	0
AUG 22...	41	100	0	25	9.8	25	34	1.1	3.7	130	0
SEP 26...	39	150	0	37	14	36	33	1.3	4.4	220	0

* Not a field determination.
K Results based on count outside ideal colony count range.

13290450 SNAKE RIVER AT HELLS CANYON DAM, IDAHO-OREGON STATE LINE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)
OCT											
28...	156	73	26	.7	26	341	334	.46	15700	.76	--
NOV											
15...	180	71	26	.7	27	333	345	.45	10900	1.5	.01
DEC											
29...	180	69	24	.8	28	333	341	.45	23200	1.0	.27
JAN											
25...	160	53	19	.6	29	292	293	.40	17000	1.2	.18
FEB											
15...	160	49	18	.6	31	274	289	.37	17800	1.5	.06
MAR											
22...	125	74	19	.5	27	259	284	.35	18100	1.1	.08
APR											
19...	90	30	13	.4	23	181	179	.25	14200	.63	.11
MAY											
22...	107	25	12	.4	17	178	184	.24	9470	.20	.01
JUN											
21...	107	32	12	.5	14	166	182	.23	10800	.18	.00
JUL											
26...	90	31	11	.4	13	164	167	.22	1000	.30	.03
AUG											
22...	107	37	11	.5	14	185	190	.25	6690	.31	.01
SEP											
26...	180	55	19	.5	20	276	294	.38	15100	.71	.00

DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
OCT											
28...	--	.36	--	--	1.1	5.0	.08	--	--	--	--
NOV											
15...	--	--	--	.44	--	--	.07	.06	2.2	--	--
DEC											
29...	--	--	--	.57	--	--	.07	.05	--	3.3	--
JAN											
25...	.29	.47	.01	.46	1.7	7.4	.07	.08	2.5	--	--
FEB											
15...	.19	.25	.17	.08	1.8	7.7	.10	.08	1.9	--	--
MAR											
22...	.30	.38	.05	.33	1.5	6.6	.06	.06	2.5	--	--
APR											
19...	.28	.39	.01	.30	1.0	4.5	.06	.05	2.3	--	--
MAY											
22...	--	--	--	.40	--	--	.03	.01	2.8	--	--
JUN											
21...	.50	.50	.00	.51	.68	3.0	.03	.02	--	2.4	.3
JUL											
26...	.25	.28	.00	.29	.58	2.6	.03	.02	13	--	--
AUG											
22...	.38	.39	.00	.41	.70	3.1	.07	.04	--	--	--
SEP											
26...	.52	.52	.17	.35	1.2	5.4	.08	.07	--	2.7	.5

13290450 SNAKE RIVER AT HELLS CANYON DAM, IDAHO-OREGON STATE LINE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)
DEC										
29...	7	0	7	0	0	0	3	0	6	10
MAR										
22...	4	0	4	100	100	0	4	2	2	10
JUN										
21...	3	0	3	200	0	200	4	4	0	0
SEP										
26...	6	--	7	0	0	0	2	1	1	0

DATE	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)
DEC										
29...	0	10	0	0	0	20	16	4	60	--
MAR										
22...	10	0	4	2	2	2	1	1	350	--
JUN										
21...	0	0	0	0	0	6	4	2	300	280
SEP										
26...	0	0	0	0	1	9	8	1	280	260

DATE	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)
DEC										
29...	20	15	0	39	20	10	10	.0	.0	.0
MAR										
22...	60	52	12	40	20	20	0	.0	.0	.0
JUN										
21...	20	20	13	7	20	10	10	.1	.1	.0
SEP										
26...	20	24	22	2	20	20	0	.4	.4	.0

DATE	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, SUS-PENDED RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
DEC									
29...	1	0	1	1	1	0	20	0	20
MAR									
22...	0	0	0	0	0	0	10	10	0
JUN									
21...	0	0	0	0	0	0	20	20	5
SEP									
26...	0	0	0	0	0	0	20	10	10

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13290450 SNAKE RIVER AT HELLS CANYON DAM, IDAHO-OREGON STATE LINE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1977 TO JULY 1978

DATE	MAR 22,78	MAY 22,78	JUN 21,78	JUL 26,78
TIME	1100	1045	1100	1030
TOTAL CELLS/ML	1100	6400	950	550
DIVERSITY: DIVISION	0.3	0.7	1.3	0.5
.CLASS	0.3	0.7	1.3	0.5
..ORDER	1.2	0.9	1.8	1.4
...FAMILY	1.3	1.1	2.0	1.4
....GENUS	1.3	1.8	2.4	2.0

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	240	4	93	10	--	-
....CHODATELLA	--	-	95	1	--	-	--	-
....KIRCHNERIELLA	14	1	--	-	--	-	--	-
...SCENEDESMACEAE								
....SCENEDESMUS	--	-	190	3	--	-	--	-
....TETRASTRUM	--	-	570	9	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	--	-	--	-	14	2
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	520#	45	4000#	61	230#	24	41	7
....MELOSIRA	--	-	1100#	18	210#	22	190#	35
..PENNALES								
...DIATOMACEAE								
....DIATOMA	--	-	95	1	--	-	--	-
...FRAGILARIACEAE								
....ASTERIONELLA	570#	50	95	1	--	-	55	10
....FRAGILARIA	--	-	--	-	69	7	220#	40
...NAVICULACEAE								
....NAVICULA	14	1	--	-	23	2	--	-
...NITZSCHIACEAE								
....NITZSCHIA	--	-	--	-	46	5	--	-
.XANTHOPHYCEAE								
..HETEROCOCCALES								
...CHLOROTHECIACEAE								
....OPHIOCYTIUM	--	-	48	1	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....ANACYSTIS	--	-	--	-	280#	29	27	5
PYRRHOPHYTA (FIRE ALGAE)								
.DINOPHYCEAE								
..PERIDINIALES								
...PERIDINIACEAE								
....PERIDINIUM	27	2	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	LENGTH OF EXPO-SURE (DAYS)	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)
FEB					
15...	21	1.42	.394	.000	.000
APR					
19...	29	.394	.236	.000	.000
JUN					
21...	30	19.4	16.1	105	.000

13293800 SALMON RIVER ABOVE REDFISH LAKE CREEK, NEAR STANLEY, ID

LOCATION.--Lat 44°09'50", long 114°53'10", in NE¼ sec.25, T.10 N., R.13 E., Custer County, Hydrologic Unit 17060201, Sawtooth National Forest, at U.S. Highway 93 crossing and 4.5 mi (7.2 km) southeast of Stanley. Temperature recorder is on right bank 1.4 mi (2.3 km) upstream and 6 mi southeast of Stanley.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--July to September 1978.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: July to September 1978.

INSTRUMENTATION.--Temperature recorder since July 13, 1978.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 20.0°C Aug. 7, 8.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, CHEM-ICAL (LOW LEVEL) (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
JUL 17...	1300	1110	88	8.2	24.0	14.0	0	8.2	100	10	42	0
AUG 07...	1300	307	*149	8.2	26.5	13.0	1	--	--	21	62	2
SEP 11...	1140	400	*144	8.2	5.5	8.5	1	9.8	107	7	68	0

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)
JUL 17...	15	1.1	2.4	11	.2	.3	51	0	42	.5	.3	4.3
AUG 07...	22	1.8	3.7	11	.2	.5	73	0	60	.7	--	5.1
SEP 11...	24	1.9	3.1	9	.2	.6	93	0	76	.9	.2	5.2

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)
JUL 17...	.7	.5	57	.08	171	.01	.00	.19	.19	.20	.89
AUG 07...	.6	.7	89	.12	73.8	.32	.00	.12	.12	.44	1.9
SEP 11...	.7	.6	90	.12	97.2	.05	.01	.29	.30	.35	1.6

* Not a field determination.

13293800 SALMON RIVER ABOVE REDFISH LAKE CREEK, NEAR STANLEY, ID

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ANTIMONY, TOTAL (UG/L AS SB)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)
JUL											
17...	.01	.03	80	0	2	200	10	50	2	10	0
AUG											
07...	.01	.03	--	--	--	--	--	--	--	--	--
SEP											
11...	.01	.03	60	0	5	0	0	70	2	0	0

DATE	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
JUL											
17...	3	40	13	10	.0	2	4	0	0	10	.00
AUG											
07...	--	--	--	--	--	--	--	--	--	--	--
SEP											
11...	3	100	5	10	.0	8	1	0	0	0	.00

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	DIAZINON, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	MALATHION, TOTAL (UG/L)	METHYL PARATHION, TOTAL (UG/L)	METHYL TRITHION, TOTAL (UG/L)	PARATHION, TOTAL (UG/L)	TOTAL TRITHION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUL											
17...	1300	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

SALMON RIVER BASIN

13293800 SALMON RIVER ABOVE REDFISH LAKE CREEK, NEAR STANLEY, ID

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

ONAL DATA

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1							---	---	19.0	11.0	16.5	9.5
2							---	---	19.0	11.0	15.5	9.0
3							---	---	19.5	11.0	16.5	10.0
4							---	---	18.5	11.0	17.5	11.0
5							---	---	18.5	12.0	14.0	11.5
6							---	---	19.5	12.5	15.0	11.0
7							---	---	20.0	11.0	13.5	11.0
8							---	---	20.0	11.5	14.0	8.5
9							---	---	18.5	11.5	14.0	7.5
10							---	---	19.5	12.0	11.0	9.5
11							---	---	19.5	11.5	11.0	8.0
12							---	---	18.5	11.0	9.5	8.0
13							15.5	11.5	14.5	11.5	10.0	7.0
14							18.0	10.0	16.0	10.0	12.5	7.0
15							17.0	11.0	16.5	9.5	13.0	7.0
16							17.5	11.5	14.5	11.0	13.0	7.0
17							17.5	10.5	15.0	8.5	10.0	6.5
18							17.0	10.5	16.5	8.5	7.5	5.0
19							17.5	10.5	16.0	9.0	8.5	4.5
20							16.5	11.0	16.5	9.0	10.5	4.0
21							17.5	10.0	16.0	9.0	10.0	5.0
22							18.5	10.5	13.5	9.0	12.0	6.0
23							18.5	10.5	15.0	8.0	13.0	6.5
24							18.0	11.0	16.5	8.5	13.0	6.5
25							19.0	11.5	16.5	8.5	13.0	7.0
26							19.5	11.0	15.5	9.0	13.5	7.0
27							19.0	13.5	16.0	8.5	13.0	8.0
28							18.0	12.5	16.0	8.0	12.0	7.0
29							19.0	13.0	16.5	8.5	12.0	6.0
30							19.5	11.5	13.5	9.0	11.5	6.0
31							19.0	11.5	17.0	10.0	---	---
MONTH							19.5	10.0	20.0	8.0	17.5	4.0
YEAR	20.0											

13296000 YANKEE FORK SALMON RIVER NEAR CLAYTON, ID

LOCATION.--Lat 44°17'15", long 114°43'11", in NE¼SW¼ sec.17, T.11 N., R.15 E., Custer County, Hydrologic Unit 17060201, Challis National Forest, at Sunbeam-Custer bridge, 1.8 mi (2.9 km) north of Sunbeam, 1.9 mi (3.1 km) upstream from mouth, and 12 mi northeast of Stanley. Temperature recorder is on left bank 3.1 mi (5.0 km) upstream from mouth and 17 mi (27 km) west of Clayton.

DRAINAGE AREA.--195 mi² (505 km²), approximately.

PERIOD OF RECORD.--July to September 1978.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: July to September 1978.

INSTRUMENTATION.--Temperature recorder since July 13, 1978.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 17.0°C Aug. 6, 8.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, CHEM-ICAL (LOW LEVEL) (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
JUL												
17...	1515	383	62	7.4	24.0	13.0	1	7.9	93	3	21	0
AUG												
07...	1600	142	65	7.3	25.5	15.5	1	--	--	18	26	0
SEP												
11...	1355	104	66	8.1	8.0	10.0	2	9.2	102	3	29	0

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)
JUL												
17...	7.0	.8	3.5	26	.3	.5	29	0	24	1.8	.3	3.0
AUG												
07...	8.9	1.0	4.1	25	.3	.7	37	0	30	3.0	--	4.0
SEP												
11...	10	1.0	3.7	21	.3	.6	44	0	36	.6	1.4	4.4

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)
JUL											
17...	.2	.2	47	.06	48.6	.01	.00	.50	.50	.51	2.3
AUG											
07...	.2	.1	56	.08	21.5	.01	.00	.13	.13	.14	.62
SEP											
11...	.3	.2	57	.08	16.0	.01	.01	.19	.20	.21	.93

13296000 YANKEE FORK SALMON RIVER NEAR CLAYTON, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ANTIMONY, TOTAL (UG/L AS SB)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)
JUL											
17...	.02	.06	140	0	2	200	0	60	1	10	0
AUG											
07...	.02	.06	--	--	--	--	--	--	--	--	--
SEP											
11...	.04	.12	80	1	2	0	10	40	0	10	0

DATE	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
JUL											
17...	4	70	4	0	.0	3	7	0	0	10	.00
AUG											
07...	--	--	--	--	--	--	--	--	--	--	--
SEP											
11...	7	50	4	0	.0	6	3	0	0	0	.00

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	DIAZINON, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	MALATHION, TOTAL (UG/L)	METHYL PARATHION, TOTAL (UG/L)	METHYL TRITHION, TOTAL (UG/L)	PARATHION, TOTAL (UG/L)	TOTAL TRITHION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUL											
17...	1515	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

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13296000 YANKEE FORK SALMON RIVER NEAR CLAYTON, ID--Continued

ONAL DATA

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1							---	---	16.0	10.0	14.0	9.5
2							---	---	16.0	10.0	14.0	9.5
3							---	---	16.5	10.0	14.0	10.5
4							---	---	16.0	10.0	15.0	10.5
5							---	---	16.0	11.0	12.0	11.5
6							---	---	17.0	11.0	13.5	10.5
7							---	---	16.5	10.5	13.5	11.0
8							---	---	17.0	10.5	13.5	9.5
9							---	---	15.5	10.5	13.0	9.0
10							---	---	16.5	11.0	11.0	10.0
11							---	---	16.5	10.5	10.5	9.0
12							---	---	15.5	10.5	9.5	8.5
13							13.5	8.5	13.0	11.5	10.0	8.5
14							14.0	7.5	13.0	10.0	12.0	8.0
15							13.5	9.0	13.5	9.0	12.5	7.5
16							14.5	8.5	12.0	10.0	11.5	7.5
17							14.5	8.0	12.0	8.5	9.5	7.0
18							14.0	8.5	14.0	8.0	7.5	6.0
19							14.0	8.0	13.0	8.5	8.0	5.5
20							14.0	9.0	14.0	8.5	9.5	5.0
21							14.5	8.0	13.5	8.5	9.0	5.0
22							15.0	8.5	11.5	9.5	10.0	5.5
23							15.0	8.5	13.0	8.5	10.5	6.0
24							14.5	9.5	14.0	8.5	11.0	6.0
25							16.0	9.5	14.0	8.5	11.0	6.5
26							16.0	9.5	12.5	9.0	11.0	6.5
27							16.5	11.0	14.0	8.5	11.0	7.5
28							15.0	11.0	13.5	8.5	10.5	7.0
29							14.0	10.5	14.5	9.0	10.5	6.5
30							16.0	10.0	11.5	9.5	10.5	6.5
31							15.5	10.5	14.5	9.5	---	---
MONTH							16.5	7.5	17.0	8.0	15.0	5.0
YEAR	17.0											

13296500 SALMON RIVER BELOW YANKEE FORK, NEAR CLAYTON, ID

LOCATION.--Lat 44°16'06", long 114°43'55", in sec.20, T.11 N., R.15 E. (unsurveyed), Custer County, Challis National Forest, on left bank 700 ft (213 m) downstream from Yankee Fork, 18 mi (29 km) upstream from Clayton, and at mile 366.9 (290.3 km).
DRAINAGE AREA.--802 mi² (2,077 km²). Mean altitude, 7,790 ft (2,374 m).
PERIOD OF RECORD.--October 1921 to current year. Monthly discharge only for some periods, published in WSP 1317. Operated as high-flow station only 1972-76 (discharge for period October 1976 to April 1977 was estimated).
GAGE.--Water-stage recorder. Altitude of gage is 5,900 ft (1,798 m), by barometer. Oct. 3, 1926, to Nov. 5, 1934, at site 200 ft (61 m) downstream at approximately present datum. Prior to Oct. 3, 1926, nonrecording gage at site 200 ft (61 m) downstream at datum approximately 1.5 ft (0.5 m) higher.
REMARKS.--Records good. Diversions above station for irrigation of about 4,400 acres (1,780 hm²) 1966 determination.
AVERAGE DISCHARGE.--53 years, 1,003 ft³/s (28.4 m³/s), 16.98 in/yr (431 mm/yr), 726,700 acre-ft/yr (896 hm³/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum, 10,400 ft³/s (295 m³/s) June 17, 1974, gage height, 11.86 ft (3.615 m); minimum, 160 ft³/s (4.53 m³/s), estimated, Nov. 25-30, 1929.
EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 2,350 ft³/s (66.6 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 23	2100	3370	95.4	6.37	1.942	June 12	-	*5290	150	8.23	2.508

Minimum discharge, 265 ft³/s (7.50 m³/s) Nov. 21, gage height, 1.53 ft (0.466 m).
REVISIONS (WATER YEARS).--WSP 1347: 1931. WSP 1567: Drainage area. WDR Idaho 1977: 1974-76.

Rating table (gage height, in feet, and discharge, in cubic feet per second)

1.6	287	6.0	3,020
2.0	426	8.0	5,020
3.0	870	10.0	7,500
4.0	1,450		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	474	386	429	383	379	358	1140	1540	2510	3300	1140	528
2	451	418	466	354	393	354	1050	1710	2440	3300	1080	523
3	437	400	481	320	390	361	915	1800	2460	3210	1030	511
4	426	418	466	350	376	379	845	1760	2630	3080	995	510
5	422	411	450	430	383	379	785	1590	2810	2920	961	566
6	415	415	435	410	393	376	736	1470	3210	2710	927	797
7	418	397	430	410	390	368	750	1390	3700	2650	875	808
8	415	340	400	400	390	376	765	1380	4180	2880	837	795
9	407	324	370	400	386	366	795	1440	4560	2760	810	717
10	404	365	420	400	390	390	870	1880	4830	2680	785	768
11	393	361	430	400	400	376	996	2040	5020	2690	759	851
12	390	376	426	390	393	390	985	1890	5200	2600	735	856
13	390	368	440	380	368	368	958	1850	4700	2460	772	839
14	390	365	525	370	390	376	958	2070	4600	2330	798	806
15	390	393	745	370	386	354	985	2090	4800	2280	755	785
16	386	390	652	370	361	358	1010	2020	4500	2330	787	752
17	379	347	554	370	358	379	915	2360	4000	2240	763	722
18	379	317	554	360	354	397	860	2160	3700	2090	721	751
19	372	300	508	366	372	411	885	2050	3500	1940	690	753
20	372	297	444	360	368	437	947	2080	3400	1820	667	733
21	372	291	429	360	358	463	895	2300	3500	1720	648	721
22	368	340	455	360	361	481	850	2750	3600	1630	637	698
23	365	368	485	350	361	500	835	3280	3400	1530	640	680
24	365	379	474	337	379	512	850	3190	3300	1450	601	662
25	368	393	459	397	376	497	942	2840	3400	1410	580	644
26	386	508	448	400	376	537	1080	2560	3330	1340	562	633
27	383	533	411	375	372	603	1200	2360	3060	1310	555	630
28	368	504	393	376	347	693	1310	2300	2980	1320	547	619
29	368	489	429	390	---	810	1420	2430	3070	1370	542	612
30	390	451	444	354	---	910	1510	2020	3210	1300	539	602
31	400	---	422	383	---	1000	---	2630	---	1220	544	---
TOTAL	12243	11644	14476	11673	10540	14579	29042	67030	109600	67870	23282	20874
MEAN	395	388	467	377	376	470	968	2162	3653	2189	751	696
MAX	474	533	745	430	400	1000	1510	3280	5200	3300	1140	856
MIN	365	291	370	320	347	354	736	1380	2440	1220	539	510
CFSM	.49	.48	.58	.47	.47	.59	1.21	2.70	4.56	2.73	.94	.87
IN.	.57	.54	.67	.54	.49	.68	1.35	3.11	5.08	3.15	1.08	.97
AC-FT	24280	23100	28710	23150	20910	28920	57600	133000	217400	134600	46180	41400

CAL YR 1977 TOTAL 167291 MEAN 458 MAX 1340 MIN 277 CFSM .57 IN 7.76 AC-FT 331800
WTR YR 1978 TOTAL 392851 MEAN 1076 MAX 5200 MIN 291 CFSM 1.34 IN 18.22 AC-FT 779200

13297330 THOMPSON CREEK NEAR CLAYTON, ID

LOCATION.--Lat 44°16'01", long 114°30'48", in NE¼NE¼SE¼ sec.24, T.11 N., R.16 E., Custer County, Hydrologic Unit 17060201, on right bank 1.2 mi (1.9 km) upstream from mouth, 2.2 mi (3.5 km) below Pat Hughes Creek, and 5.7 mi (9.2 km) west of Clayton,.

DRAINAGE AREA.--29.1 mi² (75.4 km²).

PERIOD OF RECORD.--November 1972 to current year.

GAGE.--Water-stage recorder. Datum of gage is about 5,700 ft (1,737 m) from topographic map).

REMARKS.--Records good.

AVERAGE DISCHARGE.--6 years, 18.8 ft³/s (0.532 m³/s), 8.77 in/yr (223 mm/yr), 13,620 acre-ft/yr (16.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 332 ft³/s (9.35 m³/s) June 16, 1974, gage height, 5.61 ft (1.710 m), from floodmark; minimum, 1.1 ft³/s (0.031 m³/s) Feb. 16, 21, 1978, gage height, 3.71 ft (1.131 m).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 80 ft³/s (2.27 m³/s) and maximum (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft³/s)	(m³/s)	(ft)	(m)	Date	Time	(ft³/s)	(m³/s)	(ft)	(m)
May 15	0400	100	2.83	4.84	1.475	June 7	0330	*161	4.56	5.10	1.554
May 24	1100	104	2.95	4.86	1.481						

Minimum discharge, 1.1 ft³/s (0.031 m³/s) Feb. 16, 21, gage height, 3.71 ft (1.131 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

3.7	1.0	4.4	34
3.8	2.5	4.6	58
3.9	4.8	4.8	92
4.0	7.9	5.1	161
4.2	17		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	3.1	3.8	2.9	3.3	4.3	51	38	71	57	14	6.0
2	3.6	3.1	4.3	2.7	3.1	4.1	44	44	71	54	13	6.0
3	3.3	2.9	4.8	3.2	3.1	4.5	36	47	72	49	13	5.8
4	3.1	2.9	4.3	3.7	2.9	5.4	31	49	83	50	12	5.7
5	3.1	2.9	3.8	3.4	3.3	5.1	26	47	104	45	11	6.4
6	3.1	3.1	3.6	3.3	3.1	4.8	23	40	128	44	11	8.1
7	3.1	3.1	3.6	3.2	3.1	4.8	22	36	156	44	11	7.4
8	3.1	2.5	3.3	3.2	3.1	5.1	20	45	148	47	10	7.1
9	3.1	1.8	2.9	3.2	3.1	5.4	20	35	148	45	10	6.6
10	3.1	2.3	3.3	3.2	3.1	5.4	23	45	143	42	10	6.3
11	2.9	2.6	2.9	3.2	3.1	5.7	31	51	115	40	8.6	6.5
12	2.9	2.9	2.9	3.3	2.9	6.6	32	50	94	38	6.9	6.6
13	2.9	2.9	2.9	3.3	2.5	6.3	31	54	86	35	7.4	6.3
14	2.9	2.9	4.1	3.3	3.6	6.3	30	69	86	32	7.6	6.2
15	2.9	2.9	6.3	3.3	3.3	6.0	30	100	86	31	7.6	5.9
16	2.9	3.1	5.1	3.3	2.5	5.7	30	88	83	30	7.7	5.4
17	2.6	2.6	3.8	3.4	2.6	6.9	26	74	72	28	7.6	5.4
18	2.6	2.0	4.1	3.3	3.3	7.6	23	64	71	26	7.6	5.4
19	2.6	1.8	2.6	3.3	3.6	10	21	72	66	24	7.5	5.4
20	2.6	2.0	1.8	3.3	3.3	12	22	72	64	23	7.2	5.4
21	2.6	1.8	3.1	3.2	2.9	14	22	63	64	21	6.9	5.4
22	2.6	2.1	4.1	3.1	3.6	17	21	83	64	20	6.8	5.4
23	2.6	2.6	3.8	2.1	3.6	20	21	98	64	19	6.9	5.4
24	2.6	2.9	3.6	2.3	4.5	20	20	98	64	17	6.7	5.4
25	2.6	2.9	3.6	3.3	4.3	18	20	90	64	17	6.2	5.7
26	2.6	6.3	2.9	3.8	4.3	19	23	77	58	16	6.0	5.7
27	2.9	6.0	2.3	3.1	4.3	23	29	69	53	16	6.3	5.6
28	2.9	4.5	2.5	3.1	3.6	28	32	69	55	15	6.6	5.4
29	2.9	4.1	2.9	3.6	---	38	35	77	56	15	6.3	5.4
30	2.9	3.8	3.1	2.6	---	44	37	79	57	15	6.3	5.4
31	3.1	---	2.5	3.6	---	46	---	77	---	14	6.2	---
TOTAL	90.3	90.4	108.6	98.8	93.0	409.0	832	2000	2546	969	261.9	178.7
MEAN	2.91	3.01	3.50	3.19	3.32	13.2	27.7	64.5	84.9	31.3	8.45	5.96
MAX	3.6	6.3	6.3	3.8	4.5	46	51	100	156	57	14	8.1
MIN	2.6	1.8	1.8	2.1	2.5	4.1	20	35	53	14	6.0	5.4
CFSM	.10	.10	.12	.11	.11	.45	.95	2.22	2.92	1.08	.29	.21
IN.	.12	.12	.14	.13	.12	.52	1.06	2.56	3.25	1.24	.33	.23
AC-FT	179	179	215	196	184	811	1650	3970	5050	1920	519	354

CAL YR 1977 TOTAL 1626.1 MEAN 4.46 MAX 18 MIN 1.5 CFSM .15 IN 2.08 AC-FT 3230
WTR YR 1978 TOTAL 7677.7 MEAN 21.0 MAX 156 MIN 1.8 CFSM .72 IN 9.81 AC-FT 15230

13297350 BRUNO CREEK NEAR CLAYTON, ID

LOCATION.--Lat 44°17'56", long 114°26'50", in SW¼NE¼ sec.8, T.11 N., R.17 E., Custer County, Hydrologic Unit 17060201, Bureau of Land Management lands, on left bank 0.2 mi (0.3 km) upstream from mouth, and 4.8 mi (7.7 km) northwest of Clayton.

DRAINAGE AREA.--6.29 mi² (16.29 km²).

PERIOD OF RECORD.--April 1971 to current year.

REVISED RECORDS.--WDR ID-76-1: 1974-75(P).

GAGE.--Water-stage recorder. Altitude of gage is 5,840 ft (1,780 m) from topographic map.

REMARKS.--Records good except those for winter period, which are fair.

AVERAGE DISCHARGE.--7 years, 1.81 ft³/s (0.051 dm³/s), 3.91 in/yr (103 mm/yr), 1,311 acre-ft/yr (1.62 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42 ft³/s (1.19 m³/s) May 31, 1972, gage height, 2.45 ft (0.747 m); minimum, 0.03 ft³/s (0.850 dm³/s) Sept. 13, 1977, gage height, 2.14 ft (0.652 m).

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 12 ft³/s (0.340 m³/s) June 8, no peak above base of 16 ft³/s (0.45 m³/s); minimum daily, 0.06 ft³/s (1.700 dm³/s) Nov. 22, 23, Jan. 2.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 18-21, Dec. 17-24, 26-28,
Dec. 31 to Jan. 4, Jan. 24, 30, Feb. 16, 17)

2.13	0.06	2.50	2.73
2.16	.16	2.80	6.31
2.20	.34	3.10	10.8
2.30	.96		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.16	.12	.16	.08	.12	.12	1.4	1.9	4.6	4.2	1.7	.50
2	.16	.12	.16	.06	.12	.12	1.7	2.0	4.8	4.2	1.8	.50
3	.16	.12	.16	.09	.12	.12	1.7	2.3	5.3	3.9	2.0	.50
4	.16	.12	.16	.11	.12	.12	1.6	2.5	5.8	4.2	1.5	.50
5	.16	.12	.16	.12	.12	.12	1.4	2.5	6.7	3.7	1.4	.50
6	.16	.12	.16	.12	.12	.12	1.4	2.3	8.6	3.6	1.4	.56
7	.16	.12	.16	.12	.12	.12	1.3	2.2	11	3.6	1.4	.63
8	.16	.09	.12	.12	.12	.12	1.2	2.1	12	3.6	1.3	.63
9	.16	.09	.12	.12	.12	.12	1.2	2.0	11	3.5	1.3	.63
10	.16	.06	.12	.12	.12	.16	1.2	2.3	9.0	3.4	1.2	.63
11	.16	.06	.12	.12	.12	.16	1.2	2.9	7.8	3.2	1.1	.56
12	.16	.09	.12	.12	.12	.24	1.2	2.8	7.2	3.0	.96	.56
13	.16	.09	.12	.12	.12	.16	1.3	2.9	6.8	2.8	.96	.56
14	.16	.09	.12	.12	.12	.16	1.4	3.9	6.8	2.7	.89	.56
15	.16	.12	.20	.12	.12	.16	1.4	5.6	6.8	2.7	.89	.56
16	.16	.16	.20	.12	.12	.16	1.4	5.4	6.4	2.6	.89	.56
17	.16	.16	.17	.12	.12	.16	1.4	4.8	5.8	2.5	.89	.50
18	.16	.14	.13	.12	.12	.16	1.4	4.4	5.8	2.4	.82	.50
19	.12	.10	.09	.12	.12	.16	1.4	4.0	5.6	2.3	.82	.50
20	.12	.08	.07	.12	.12	.24	1.4	3.9	5.4	2.3	.69	.50
21	.12	.07	.07	.12	.12	.34	1.4	4.4	5.4	2.1	.69	.56
22	.12	.06	.08	.12	.12	.39	1.4	5.5	5.4	2.1	.63	.56
23	.12	.06	.10	.12	.12	.45	1.4	6.0	5.4	2.0	.63	.56
24	.12	.09	.12	.12	.12	.50	1.3	6.3	5.4	2.0	.63	.56
25	.09	.09	.16	.12	.12	.50	1.3	5.6	5.4	1.9	.56	.56
26	.09	.12	.15	.12	.12	.63	1.3	5.0	5.2	1.8	.56	.56
27	.09	.16	.12	.12	.12	.69	1.4	4.8	5.1	1.7	.56	.50
28	.09	.16	.12	.12	.12	.76	1.4	4.8	4.8	1.7	.56	.50
29	.09	.20	.12	.12	---	.82	1.5	5.1	4.5	1.8	.50	.50
30	.12	.16	.12	.12	---	1.0	1.7	5.3	4.3	1.9	.50	.50
31	.12	---	.10	.12	---	1.2	---	4.9	---	1.7	.50	---
TOTAL	4.29	3.34	4.08	3.58	3.36	10.28	41.7	120.4	194.1	85.1	30.23	16.30
MEAN	.14	.11	.13	.12	.12	.33	1.39	3.88	6.47	2.75	.98	.54
MAX	.16	.20	.20	.12	.12	1.2	1.7	6.3	12	4.2	2.0	.63
MIN	.09	.06	.07	.06	.12	.12	1.2	1.9	4.3	1.7	.50	.50
AC-FT	8.5	6.6	8.1	7.1	6.7	20	83	239	385	169	60	32

CAL YR 1977 TOTAL 101.13 MEAN .28 MAX 1.1 MIN .06 AC-FT 201
WTR YR 1978 TOTAL 516.76 MEAN 1.42 MAX 12 MIN .06 AC-FT 1020

13297355 SQUAW CREEK BELOW BRUNO CREEK, NEAR CLAYTON, ID

LOCATION.--Lat 44°17'26", long 114°28'14", in SW¼SW¼SW¼ sec.9, T.11 N., R.17 E., Custer County, Hydrologic Unit 17060201, on left bank 3 mi (4.8 km) upstream from mouth and 4.5 mi (7.2 km) northwest of Clayton.

DRAINAGE AREA.--79.0 mi² (205 km²).

PERIOD OF RECORD.--October 1972 to current year.

REVISED RECORDS.--WDR ID-76-1: 1975(P).

GAGE.--Water-stage recorder. Altitude of gage is 5,710 ft (1,740.40 m) from topographic map. Prior to June 12, 1974, at datum 2.46 ft higher.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--6 years, 36.4 ft³/s (1.031 m³/s), 6.26 in/yr (159 mm/yr), 26,370 acre-ft/yr (32.5 hm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 694 ft³/s (19.7 m³/s) June 16, 1974, gage height, 5.85 ft (1.783 m); minimum, 3.8 ft³/s (0.11 m³/s) Aug. 24, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 180 ft³/s (5.10 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 23	2330	185	5.24	4.28	1.305	June 9	2000	*365	10.3	4.87	1.484

Minimum daily discharge, 5.0 ft³/s (0.14 m³/s) Jan. 2, 23.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 11-14, 17-22, Nov. 30 to Dec. 1, Dec. 5-11, 17-22, Dec. 26 to Jan. 5, Jan. 23-31, Feb. 4, 9, 10, 12-23, 28, Mar. 1-4)

2.6	4.8	3.4	42
2.8	9.0	3.8	88
3.0	16	4.2	165
3.2	27	4.8	341

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.3	7.6	7.2	5.7	8.0	7.0	70	60	128	102	27	13
2	6.8	8.3	8.8	5.0	7.3	6.8	59	69	134	95	25	13
3	6.8	6.6	9.3	5.4	7.3	8.8	48	75	153	92	25	13
4	6.8	8.0	8.5	6.0	7.0	9.0	41	74	185	92	22	12
5	6.6	8.0	7.2	6.6	8.5	9.0	36	68	231	82	21	15
6	6.8	8.0	7.8	7.8	7.6	9.0	33	61	267	82	21	18
7	6.8	7.6	7.0	7.3	7.3	9.0	31	54	298	82	21	17
8	6.8	6.1	7.0	7.3	7.3	9.0	30	51	308	86	18	16
9	6.8	6.1	7.0	7.3	7.5	9.6	31	53	318	82	18	16
10	6.8	6.8	8.5	7.3	7.5	11	35	67	286	76	18	15
11	6.4	7.0	7.4	7.3	7.8	12	44	76	220	72	15	15
12	6.8	7.1	7.8	7.3	7.0	11	45	70	185	68	13	16
13	7.1	7.0	7.8	9.9	6.6	12	44	73	180	64	14	15
14	7.1	6.8	9.6	7.3	8.5	14	44	99	190	58	15	15
15	7.1	7.8	14	7.3	8.3	14	44	142	187	56	15	14
16	7.1	7.6	11	7.3	6.7	14	45	124	170	54	15	13
17	7.1	5.5	8.0	7.3	7.6	13	40	106	149	52	15	13
18	7.1	5.4	8.0	7.3	8.4	14	36	95	138	48	15	13
19	7.1	5.4	7.0	7.3	7.6	18	35	86	130	45	15	13
20	7.1	5.8	5.6	7.3	6.7	22	34	85	124	42	14	13
21	7.1	6.2	6.4	7.3	6.2	25	33	99	124	39	14	13
22	6.8	6.6	7.4	7.1	7.0	28	31	136	124	37	14	13
23	6.8	7.6	8.8	5.0	7.6	31	30	170	122	35	14	13
24	7.1	7.6	8.8	5.4	8.5	29	30	172	120	32	14	13
25	7.1	8.0	7.8	6.8	8.8	28	32	147	114	32	13	14
26	7.6	11	6.7	7.6	8.8	32	36	126	105	30	13	14
27	7.8	11	5.3	6.7	8.8	37	41	116	98	30	13	13
28	7.6	9.9	5.6	6.8	6.8	45	46	128	100	28	15	13
29	7.6	8.8	6.7	7.5	---	56	49	151	102	28	14	14
30	8.0	15	7.3	6.3	---	64	57	151	102	28	14	14
31	7.8	---	6.4	8.4	---	69	---	136	---	27	14	---
TOTAL	219.6	230.2	241.7	216.2	213.0	676.2	1210	3120	5092	1776	514	422
MEAN	7.08	7.67	7.80	6.97	7.61	21.8	40.3	101	170	57.3	16.6	14.1
MAX	8.0	15	14	9.9	8.8	69	70	172	318	102	27	18
MIN	6.4	5.4	5.3	5.0	6.2	6.8	30	51	98	27	13	12
CFSM	.09	.10	.10	.09	.10	.28	.51	1.28	2.15	.73	.21	.18
IN.	.10	.11	.11	.10	.10	.32	.57	1.47	2.40	.84	.24	.20
AC-FT	436	457	479	429	422	1340	2400	6190	10100	3520	1020	837

CAL YR 1977 TOTAL 3684.7 MEAN 10.1 MAX 38 MIN 4.0 CFSM .13 IN 1.74 AC-FT 7310
WTR YR 1978 TOTAL 13930.9 MEAN 38.2 MAX 318 MIN 5.0 CFSM .48 IN 6.56 AC-FT 27630

NOTE.--No gage-height record June 26 to Sept. 30.

13297450 LITTLE BOULDER CREEK NEAR CLAYTON, ID

LOCATION.--Lat 44°05'57", long 114°26'56", in SW¼NE¼NW¼ sec.22, T.9 N., R.17 E., Custer County, Hydrologic Unit 17060201, on right bank 950 ft (290 m) upstream from mouth and 11 mi (17.7 km) south of Clayton.

DRAINAGE AREA.--18.4 mi² (47.6 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1970 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,200 ft (1,890 m) from topographic map.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--8 years, 22.9 ft³/s (0.648 m³/s), 16.83 in/yr (427 mm/yr), 16,520 acre-ft/yr (20.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 570 ft³/s (16.1 m³/s) June 1, 1972, gage height, 5.84 ft (1.780 m); maximum gage height, 5.96 ft (1.817 m) Jan. 31, 1975; minimum discharge, 2.2 ft³/s (62.3 dm³/s) Nov. 8, 1977, gage height, 3.34 ft (1.018 m).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 100 ft³/s (2.83 m³/s) and maximum (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft³/s)	(m³/s)	(ft)	(m)	Date	Time	(ft³/s)	(m³/s)	(ft)	(m)
June 10	0345	148	4.19	5.18	1.579	June 30	0700	145	4.11	5.16	1.573
June 14	1900	114	3.23	5.05	1.539	July 11	0600	*154	4.36	5.18	1.579
June 24	0100	123	3.48	5.08	1.548						

Minimum discharge, 2.2 ft³/s (62.3 dm³/s) Nov. 8, gage height, 3.34 ft (1.018 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 9, 18-21, Dec. 9, 16-21)

3.3	1.9	3.7	4.7	4.5	35
3.4	2.6	3.9	7.2	4.7	60
3.5	3.2	4.1	12	5.0	119
3.6	3.9	4.3	19	5.4	249

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.1	4.9	5.9	4.7	4.3	4.3	7.6	7.7	24	134	53	14
2	7.0	5.4	5.9	4.6	4.3	4.2	6.8	8.6	25	134	50	14
3	6.9	4.3	7.0	4.6	4.4	4.0	6.1	9.2	30	126	46	14
4	6.5	5.7	7.4	4.6	4.4	4.1	5.9	9.2	32	112	45	14
5	6.4	5.1	6.8	4.6	4.4	4.4	5.9	8.4	36	96	44	20
6	6.3	5.0	6.7	4.9	4.4	4.4	5.6	8.0	54	88	44	35
7	6.1	4.8	6.5	4.9	4.3	4.4	5.7	7.9	78	95	44	37
8	6.0	2.7	6.5	4.8	4.4	4.3	6.0	7.9	101	114	44	35
9	5.8	3.8	6.0	4.8	4.4	4.3	6.0	8.6	120	125	40	30
10	5.6	5.0	6.0	4.7	4.4	4.5	6.4	11	127	130	38	28
11	5.5	5.2	5.7	4.6	4.5	4.5	6.8	12	79	140	36	25
12	5.5	5.0	5.7	4.6	4.5	4.5	6.5	11	57	124	34	23
13	5.4	4.8	5.7	4.5	4.4	4.4	6.4	12	65	107	34	22
14	5.4	4.6	6.2	4.5	4.4	4.4	6.4	15	101	105	32	20
15	5.2	5.0	6.5	4.7	4.4	4.2	6.4	21	100	119	30	19
16	5.2	4.7	6.0	4.7	4.3	4.3	6.8	18	87	137	31	18
17	5.0	4.1	5.6	4.6	4.3	4.5	6.4	16	67	121	29	17
18	4.8	3.4	5.6	4.6	4.3	4.6	6.5	15	70	94	27	18
19	4.8	2.9	4.8	4.6	4.3	4.6	7.0	14	66	80	23	19
20	4.7	2.5	4.5	4.5	4.3	4.5	6.9	14	65	73	21	19
21	4.7	3.7	5.0	4.5	4.3	4.5	6.6	16	76	68	20	18
22	4.6	5.2	5.4	4.4	4.3	4.7	6.3	22	87	63	19	17
23	4.6	5.5	5.2	4.4	4.3	4.7	6.2	25	102	60	18	17
24	4.6	5.7	5.4	4.3	4.3	4.7	6.2	28	110	59	17	16
25	4.6	5.9	5.4	4.3	4.3	4.9	6.5	24	98	63	16	16
26	4.6	8.4	5.2	4.3	4.3	5.0	6.6	20	79	67	15	15
27	4.6	7.3	5.1	4.3	4.3	5.5	6.8	20	63	67	15	15
28	4.6	7.0	4.9	4.3	4.3	5.7	7.1	22	68	67	15	14
29	4.6	6.5	4.8	4.3	---	6.2	7.6	28	100	67	15	14
30	4.7	6.2	4.8	4.3	---	7.0	7.9	29	124	60	15	14
31	4.5	---	4.8	4.3	---	7.3	---	27	---	59	14	---
TOTAL	165.9	150.3	177.0	140.8	121.8	147.6	195.9	495.5	2291	2954	924	597
MEAN	5.35	5.01	5.71	4.54	4.35	4.76	6.53	16.0	76.4	95.3	29.8	19.9
MAX	7.1	8.4	7.4	4.9	4.5	7.3	7.9	29	127	140	53	37
MIN	4.5	2.5	4.5	4.3	4.3	4.0	5.6	7.7	24	59	14	14
CFSM	.29	.27	.31	.25	.24	.26	.36	.87	4.15	5.18	1.62	1.08
IN.	.34	.30	.36	.28	.25	.30	.40	1.00	4.63	5.97	1.87	1.21
AC-FT	329	298	351	279	242	293	389	983	4540	5860	1830	1180

CAL YR 1977 TOTAL 3288.0 MEAN 9.01 MAX 72 MIN 2.5 CFSM .49 IN 6.65 AC-FT 6520
WTR YR 1978 TOTAL 8360.8 MEAN 22.9 MAX 140 MIN 2.5 CFSM 1.25 IN 16.90 AC-FT 16580

13297450 LITTLE BOULDER CREEK NEAR CLAYTON, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970 to current year (discontinued).
PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: June 1970 to current year (discontinued).
REMARKS.--No temperature record Feb. 26 to Mar. 13 due to equipment malfunction.
EXTREMES FOR PERIOD OF RECORD.--
WATER TEMPERATURES: Maximum, 16.0°C July 11, 1973; minimum, 0.0°C several days during winter periods.
EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 15.0°C July 26-28, 30, 31, Aug. 4, 6-8; minimum, 0.0°C Nov. 18-24.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)
OCT 19...	0940	4.8	92	--	2.5	2.5	--	--	--	--	--	--
DEC 11...	1200	5.5	86	--	3.0	2.0	--	--	--	--	--	--
MAR 14...	1005	4.5	--	--	.5	.5	--	--	--	--	--	--
APR 19...	1315	6.7	103	--	17.0	4.5	--	--	--	--	--	--
MAY 25...	1500	24	--	--	--	2.5	--	--	--	--	--	--
JUL 11...	1245	136	39	7.4	21.5	9.0	8.9	96	140	K3	37	17
AUG 10...	1300	41	60	--	28.5	12.0	--	--	--	--	--	--
SEP 12...	1515	22	58	8.2	10.0	6.5	9.7	99	K12	K9	K10	31

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT 19...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 11...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 14...	--	--	--	--	--	--	--	--	--	--	--	--
APR 19...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 25...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 11...	0	6.2	.3	1.4	15	.2	.2	24	0	20	1.5	3.1
AUG 10...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 12...	0	11	.8	1.7	11	.1	.2	39	0	32	.4	2.7

K Results based on count outside ideal colony count range.

13297450 LITTLE BOULDER CREEK NEAR CLAYTON, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)
OCT 19...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 11...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 14...	--	--	--	--	--	--	--	--	--	--	--	--
APR 19...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 25...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 11...	.4	.1	8.7	33	.04	12.1	.04	.02	.02	.06	1.8	20
AUG 10...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 12...	.5	.1	10	47	.06	2.83	.01	.01	.01	.03	1.0	30

DATE	BARIUM, DISSOLVED (UG/L AS BA)	ARSENIC DISSOLVED (UG/L AS AS)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, DISSOLVED (UG/L AS B)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)
OCT 19...	--	--	--	--	--	--	--	--	--	--	--
DEC 11...	--	--	--	--	--	--	--	--	--	--	--
MAR 14...	--	--	--	--	--	--	--	--	--	--	--
APR 19...	--	--	--	--	--	--	--	--	--	--	--
MAY 25...	--	--	--	--	--	--	--	--	--	--	--
JUL 11...	200	1	0	4	2	0	3	1	20	7	0
AUG 10...	--	--	--	--	--	--	--	--	--	--	--
SEP 12...	200	1	0	10	1	0	0	2	40	1	2

DATE	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
OCT 19...	--	--	--	--	--	--	--	--	--	--	--
DEC 11...	--	--	--	--	--	--	--	--	--	--	--
MAR 14...	--	--	--	--	--	--	--	--	--	--	--
APR 19...	--	--	--	--	--	--	--	--	--	--	--
MAY 25...	--	--	--	--	--	--	--	--	--	--	--
JUL 11...	0	.0	4	2	0	0	70	--	0	21	7.7
AUG 10...	--	--	--	--	--	--	--	--	--	--	--
SEP 12...	0	.0	7	2	0	0	100	.0	10	1	.06

13297450 LITTLE BOULDER CREEK NEAR CLAYTON, ID--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	5.0	3.5	1.5	1.0	1.0	.5	1.5	1.5	1.5	1.5	---	---
2	4.5	3.5	3.0	1.5	1.0	1.0	1.5	1.5	2.0	1.5	---	---
3	5.0	4.0	1.0	1.0	1.0	1.0	1.5	1.5	2.0	1.5	---	---
4	4.5	3.0	2.0	1.0	1.0	1.0	1.5	1.5	1.5	1.5	---	---
5	5.0	3.0	3.0	2.5	1.0	.5	2.0	1.5	2.0	1.5	---	---
6	5.5	4.5	3.0	1.5	1.0	.5	2.0	2.0	2.0	2.0	---	---
7	5.5	5.0	1.5	1.0	1.0	.5	1.5	1.5	2.0	2.0	---	---
8	4.0	2.0	1.0	.5	.5	.5	2.0	1.5	2.0	2.0	---	---
9	3.0	2.0	.5	.5	.5	.5	2.0	2.0	2.0	2.0	---	---
10	3.0	3.0	.5	.5	1.0	.5	2.0	2.0	2.0	2.0	---	---
11	2.0	1.0	.5	.5	2.0	1.5	2.0	2.0	2.0	2.0	---	---
12	3.5	2.0	1.0	.5	2.0	1.5	2.0	2.0	1.5	1.0	---	---
13	4.5	3.0	1.5	1.0	2.0	1.5	2.0	1.5	1.0	1.0	---	---
14	4.5	3.5	1.5	1.0	2.0	2.0	2.0	1.5	1.0	1.0	1.0	.5
15	4.5	3.0	2.0	1.5	2.0	1.5	2.0	2.0	1.5	1.0	1.0	.5
16	4.5	3.5	2.0	.5	1.5	1.0	2.0	2.0	1.5	1.0	1.5	.5
17	4.5	2.5	.5	.5	1.0	1.0	2.0	2.0	1.0	1.0	3.0	1.0
18	4.0	2.5	.0	.0	1.0	1.0	2.0	2.0	1.5	1.0	3.0	2.0
19	4.5	3.0	.0	.0	1.0	1.0	2.0	2.0	2.0	1.0	3.5	2.0
20	4.5	4.0	.0	.0	1.0	.5	2.0	2.0	2.0	1.5	3.5	2.0
21	4.5	3.0	.0	.0	.5	.5	2.0	2.0	1.5	1.5	3.5	2.0
22	4.0	2.5	.0	.0	1.0	.5	2.0	1.5	2.0	1.5	3.5	2.5
23	4.0	2.0	.0	.0	1.5	1.0	1.5	1.0	2.0	1.5	4.0	2.5
24	4.0	3.0	1.0	.0	1.5	1.5	1.0	1.0	2.0	2.0	3.5	2.0
25	5.5	4.0	1.0	1.0	1.5	1.5	1.5	1.0	2.5	2.0	4.0	2.5
26	6.0	5.5	1.0	.5	1.5	1.5	2.0	1.5	---	---	4.0	2.0
27	5.0	3.0	1.0	.5	1.5	1.5	1.5	1.0	---	---	4.0	3.0
28	4.5	3.5	1.0	1.0	1.5	1.0	1.5	1.0	---	---	4.5	2.5
29	4.5	4.0	1.0	1.0	1.5	1.0	2.0	1.5	---	---	5.0	2.5
30	4.0	2.0	1.0	.5	1.5	1.0	1.5	1.0	---	---	4.5	3.0
31	2.0	1.0	---	---	1.5	1.5	1.5	1.0	---	---	4.5	3.0
MONTH	6.0	1.0	3.0	.0	2.0	.5	2.0	1.0	2.5	1.0	5.0	.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	4.0	3.0	6.0	4.0	7.5	4.0	10.0	7.0	14.5	10.5	10.5	9.0
2	3.0	2.0	6.5	4.5	6.5	4.0	8.5	7.5	14.5	11.0	11.0	8.5
3	2.5	1.0	7.0	4.5	6.5	5.0	8.5	7.0	14.5	11.0	11.0	9.5
4	3.0	2.5	5.5	2.5	8.5	4.0	8.5	6.5	15.0	11.0	12.5	10.5
5	3.5	1.5	3.0	2.0	9.5	4.5	8.5	6.0	14.5	12.0	12.5	11.0
6	3.5	2.0	5.0	3.0	8.5	5.0	9.0	7.0	15.0	12.0	11.5	10.5
7	3.0	2.5	5.5	4.0	8.5	4.0	9.5	7.0	15.0	11.5	11.5	11.0
8	5.0	2.5	7.5	4.0	8.5	4.0	9.5	6.5	15.0	11.0	10.5	7.0
9	4.5	2.0	8.0	5.0	8.5	5.0	11.5	6.5	14.0	11.0	10.0	7.0
10	5.5	2.5	8.0	6.0	6.0	5.5	11.5	7.5	14.5	12.0	10.0	8.5
11	5.0	3.0	7.5	5.0	8.0	3.0	11.5	8.5	14.0	11.0	8.5	7.0
12	4.0	1.0	7.0	3.0	8.5	4.0	11.5	7.0	13.5	11.0	7.5	6.5
13	4.0	1.0	9.0	6.0	9.5	5.5	12.0	8.0	13.0	10.5	7.0	5.5
14	4.5	2.0	9.5	6.5	8.5	5.0	13.0	8.5	10.5	8.0	7.0	6.0
15	5.0	3.0	8.0	5.0	8.0	4.5	12.0	9.5	11.5	6.0	---	---
16	3.5	2.0	5.5	4.5	8.0	3.5	12.0	9.0	11.5	9.0	---	---
17	3.0	1.0	6.5	4.5	9.0	4.0	12.5	8.0	9.0	6.5	---	---
18	3.0	1.0	6.5	5.0	8.5	5.5	12.5	8.5	10.0	6.5	---	---
19	4.5	1.5	7.5	5.5	9.5	5.5	12.5	8.5	10.5	7.0	---	---
20	4.0	3.5	9.5	6.0	10.0	5.0	12.0	9.0	11.0	8.0	---	---
21	3.5	1.5	10.0	6.5	8.5	6.0	13.0	8.5	11.5	8.0	---	---
22	2.5	1.0	9.0	6.5	10.5	5.5	13.0	9.0	11.5	9.5	---	---
23	4.0	1.5	8.5	6.0	10.0	6.0	14.0	9.5	10.0	7.0	---	---
24	5.5	2.5	7.5	5.0	9.0	6.0	14.0	10.0	10.5	7.5	---	---
25	5.0	4.5	5.0	2.5	7.5	5.5	14.5	10.5	11.0	8.0	---	---
26	6.0	4.5	6.0	2.0	8.5	6.5	15.0	11.0	11.0	8.0	---	---
27	5.0	4.0	8.0	4.0	10.0	5.5	15.0	12.0	10.0	7.5	---	---
28	5.0	4.0	9.0	5.0	11.0	6.5	15.0	12.0	10.0	7.5	---	---
29	6.0	4.5	7.5	5.0	10.5	7.0	14.5	11.5	10.5	8.5	---	---
30	5.0	4.5	5.0	3.0	10.5	7.5	15.0	11.5	10.5	8.5	---	---
31	---	---	6.0	3.5	---	---	15.0	11.5	10.5	9.5	---	---
MONTH	6.0	1.0	10.0	2.0	11.0	3.0	15.0	6.0	15.0	6.5	12.5	5.5
YEAR	15.0	.0										

13298000 EAST FORK SALMON RIVER NEAR CLAYTON, ID

LOCATION.--Lat 44°13'29", long 114°17'06", in NW¼NE¼SW¼ sec.1, T.10 N., R.18 E., Custer County, Hydrologic Unit 17060201, on right bank at county road crossing, 6 mi (9.7 km) southeast of Clayton, and at mile 3.9 (6.3 km).

DRAINAGE AREA.--532 mi² (1,379 km²).

PERIOD OF RECORD.--September 1928 to September 1939 (gage heights and discharge measurements only), May 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,510 ft (1,680 m) from topographic map. September 1928 to September 1939, nonrecording gage at present site and at datum approximately 5 ft (1.5 m) higher.

REMARKS.--Records good. No regulation. Small diversions above station for irrigation.

AVERAGE DISCHARGE.--16 years (1929-39, 1974-78), 228 ft³/s (6.457 m³/s), 5.82 in/yr (148 mm/yr), 165,200 acre-ft/yr (204 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,020 ft³/s (114 m³/s) June 17, 1974, gage height, 10.60 ft (3.231 m), present datum, from rating curve extended above 1,400 ft³/s minimum discharge, 26 ft³/s (0.736 m³/s) Nov. 21, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,200 ft³/s (34.0 m³/s) and maximum (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft³/s)	(m³/s)	(ft)	(m)	Date	Time	(ft³/s)	(m³/s)	(ft)	(m)
June 10	0600	*1670	47.3	9.48	2.890	June 24	0930	1280	36.2	8.92	2.719
June 14	0800	1420	40.2	9.18	2.798	July 1	0815	1260	35.7	8.96	2.731

Minimum discharge, 26 ft³/s (0.74 m³/s) Nov. 21.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Jan. 31 to Mar. 22, May 15 to Aug. 1;
stage-discharge relation affected by ice Dec. 20-22, 28)

6.0	25	7.0	193
6.2	41	7.5	385
6.3	51	8.0	676
6.6	96	8.5	1,090
6.8	138	9.0	1,670
		9.5	2,420

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	98	89	101	63	84	77	193	151	430	1140	404	161
2	96	96	92	41	85	70	181	172	480	1030	380	156
3	103	84	92	67	80	72	159	190	540	919	357	151
4	100	91	92	109	75	84	151	193	680	803	344	153
5	100	89	87	111	80	84	143	193	760	705	335	193
6	107	92	87	105	79	80	131	196	1000	648	331	504
7	109	98	89	92	77	80	133	187	1300	690	310	545
8	105	82	74	96	77	82	131	175	1360	819	290	434
9	105	67	57	94	75	87	124	172	1540	893	286	331
10	105	84	100	89	77	87	124	196	1670	910	282	306
11	100	85	92	87	79	84	136	202	1130	989	271	294
12	100	89	89	87	75	85	136	222	885	868	264	275
13	101	87	85	79	64	80	136	218	998	803	256	264
14	100	87	94	92	79	77	136	260	1360	772	256	246
15	85	91	119	85	79	75	133	376	1280	860	239	232
16	77	89	107	85	68	75	151	385	1100	953	242	222
17	68	75	87	85	59	89	141	327	927	819	239	215
18	74	63	105	85	71	101	124	298	953	676	222	249
19	74	44	68	84	85	105	131	275	851	628	212	249
20	75	35	46	82	79	109	129	249	827	595	202	246
21	77	36	45	82	72	111	129	264	919	545	193	253
22	80	74	80	80	92	113	122	300	989	493	187	249
23	79	105	107	71	75	113	122	400	1070	476	181	253
24	82	98	107	51	80	115	119	500	1130	460	172	256
25	82	101	91	82	80	107	122	440	1030	498	164	256
26	84	115	84	92	80	111	129	400	936	498	164	253
27	89	105	59	77	79	122	138	380	764	493	153	246
28	87	96	45	70	65	129	143	420	868	521	159	239
29	87	91	65	89	---	143	148	490	1080	551	164	232
30	92	87	100	61	---	164	151	520	1150	487	167	222
31	87	---	89	80	---	181	---	480	---	434	167	---
TOTAL	2808	2525	2635	2553	2150	3092	4146	9231	30007	21976	7593	7885
MEAN	90.6	84.2	85.0	82.4	76.8	99.7	138	298	1000	709	245	263
MAX	109	115	119	111	92	181	193	520	1670	1140	404	545
MIN	68	35	45	41	59	70	119	151	430	434	153	151
AC-FT	5570	5010	5230	5060	4260	6130	8220	18310	59520	43590	15060	15640

CAL YR 1977 TOTAL 50895 MEAN 139 MAX 1180 MIN 35 AC-FT 101000
WTR YR 1978 TOTAL 96601 MEAN 265 MAX 1670 MIN 35 AC-FT 191600

13302500 SALMON RIVER AT SALMON, ID

LOCATION.--Lat 45°11'00", long 113°53'40", in NE¼NE¼ sec.6, T.21 N., R.22 E., Lemhi County, Hydrologic Unit 17060203, on left bank 1,000 ft (300 m) downstream from island, 0.4 mi (0.6 km) upstream from Lemhi River, 0.5 mi (0.8 km) downstream from highway bridge at Salmon, and at mile 258.9 (416.6 km).

DRAINAGE AREA.--3,760 mi² (9,740 km²), approximately. Mean altitude, 7,380 ft (2,250 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1912 to September 1916, July 1919 to current year. Monthly discharge only for some periods, published in WSP 1317.

REVISED RECORDS.--WSP 1043: Drainage area. WSP 1317: 1916.

GAGE.--Water-stage recorder. Datum of gage is 3,911.14 ft (1,192.115 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Oct. 21, 1929, nonrecording gage at site 700 ft (210 m) upstream at different datum.

REMARKS.--Records good. Diversions above station for irrigation of about 83,800 acres (33,900 hm²) of which about 900 acres (360 hm²) are by withdrawals from ground water (1966 determination).

AVERAGE DISCHARGE.--63 years, 1,975 ft³/s (55.93 m³/s), 1,431,000 acre-ft/yr (1,764 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,700 ft³/s (501 m³/s) June 17, 1974, gage height, 8.62 ft (2.627 m); maximum gage height, 9.62 ft (2.932 m) Jan. 8, 1942 (ice jam); minimum discharge, 242 ft³/s (6.85 m³/s) Jan. 8, 1937, gage height, 1.50 ft (0.457 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,690 ft³/s (274 m³/s) June 10, 11, gage height, 6.29 ft (1.917 m); minimum, 642 ft³/s (18.2 m³/s) Jan. 3, gage height, 1.03 ft (0.314 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

1.2	740	4.0	4,160
2.0	1,420	5.0	6,240
3.0	2,620	6.2	9,350

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1230	1110	1310	1070	1030	1020	2160	2550	3760	5460	1920	1100
2	1230	1110	1320	882	1070	1010	2270	2620	3630	5420	1820	1080
3	1200	1110	1400	754	1090	993	2120	2770	3810	5440	1750	1070
4	1200	1140	1410	914	1070	1020	1950	2810	4100	5160	1700	1060
5	1190	1140	1360	1120	1040	1080	1850	2760	4660	4980	1630	1080
6	1180	1130	1290	1200	1060	1100	1750	2550	5820	4580	1590	1280
7	1180	1110	1270	1230	1080	1160	1680	2370	7120	4340	1580	1800
8	1170	1100	1260	1180	1100	1100	1700	2270	8050	4380	1560	1950
9	1150	1060	1180	1170	1080	1110	1660	2190	8720	4620	1510	1840
10	1130	1030	1130	1170	1060	1240	1660	2300	9350	4430	1470	1710
11	1130	1090	1230	1160	1050	1200	1730	2740	9240	4300	1440	1770
12	1110	1120	1230	1130	1050	1150	1860	2900	7680	4230	1390	1780
13	1130	1130	1240	1110	1020	1140	1880	2760	6740	4000	1410	1800
14	1130	1140	1260	1100	985	1100	1850	2760	6840	3760	1500	1730
15	1110	1130	1610	1100	1050	1080	1840	3230	7220	3650	1530	1680
16	1100	1150	1740	1110	1040	1050	1930	3950	7070	3750	1470	1630
17	1080	1150	1540	1110	1000	1060	1960	3730	6600	3680	1510	1560
18	1050	1090	1430	1110	977	1140	1830	3420	6140	3450	1490	1570
19	1040	993	1390	1100	1020	1240	1740	3230	6170	3230	1460	1670
20	1050	906	1260	1100	1070	1270	1750	3060	5820	3020	1430	1700
21	1030	874	1100	1090	1040	1290	1820	3080	5710	2900	1370	1720
22	1030	906	1090	1090	1010	1330	1760	3350	5940	2760	1300	1710
23	1030	1040	1180	1050	1010	1390	1680	4050	5940	2560	1260	1680
24	1010	1180	1310	969	1030	1470	1650	4780	5980	2430	1260	1650
25	1020	1220	1310	890	1110	1420	1620	4620	6050	2320	1210	1620
26	1020	1280	1260	1010	1130	1400	1750	4180	5910	2260	1180	1570
27	1020	1410	1170	1120	1120	1440	1920	3780	5400	2130	1140	1520
28	1060	1430	1040	1040	1080	1530	2080	3570	5060	2080	1120	1470
29	1060	1380	985	1000	---	1640	2180	3630	5060	2190	1100	1450
30	1070	1370	1080	1070	---	1810	2360	3950	5310	2190	1100	1450
31	1100	---	1180	954	---	2010	---	3960	---	2070	1110	---
TOTAL	34240	34029	39565	33103	29472	38993	55990	99920	184900	111770	44310	46700
MEAN	1105	1134	1276	1068	1053	1258	1866	3223	6163	3605	1429	1557
MAX	1230	1430	1740	1230	1130	2010	2360	4780	9350	5460	1920	1950
MIN	1010	874	985	754	977	993	1620	2190	3630	2070	1100	1060
AC-FT	67920	67500	78480	65660	58460	77340	111100	198200	366700	221700	87890	92630

CAL YR 1977 TOTAL 402550 MEAN 1103 MAX 3220 MIN 557 AC-FT 798500
WTR YR 1978 TOTAL 752992 MEAN 2063 MAX 9350 MIN 754 AC-FT 1494000

13302500 SALMON RIVER AT SALMON, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
OCT 20...	1830	1050	280	--	15.0	11.0	--	--	--
DEC 08...	1515	1260	242	--	3.0	1.0	--	--	--
JAN 20...	1540	1100	236	--	.5	2.0	--	--	--
MAR 10...	1700	1270	261	--	13.0	7.5	--	--	--
APR 20...	1745	1730	161	--	10.0	11.0	--	--	--
JUN 08...	1935	8470	90	--	27.0	13.5	--	--	--
28...	2000	5320	130	7.4	24.0	15.0	59	1	18
AUG 08...	1740	1570	--	--	35.5	20.5	--	--	--
SEP 14...	1725	1720	228	8.6	19.5	13.5	100	0	30

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)
OCT 20...	--	--	--	--	--	--	--	--	--
DEC 08...	--	--	--	--	--	--	--	--	--
JAN 20...	--	--	--	--	--	--	--	--	--
MAR 10...	--	--	--	--	--	--	--	--	--
APR 20...	--	--	--	--	--	--	--	--	--
JUN 08...	--	--	--	--	--	--	--	--	--
28...	3.3	5.8	17	.3	1.0	70	0	57	6.2
AUG 08...	--	--	--	--	--	--	--	--	--
SEP 14...	6.3	8.1	15	.4	1.6	120	4	110	14

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT 20...	--	--	--	--	--	--	--	--
DEC 08...	--	--	--	--	--	--	--	--
JAN 20...	--	--	--	--	--	--	--	--
MAR 10...	--	--	--	--	--	--	--	--
APR 20...	--	--	--	--	--	--	--	--
JUN 08...	--	--	--	--	--	--	--	--
28...	1.6	.3	12	83	.11	1190	.04	.03
AUG 08...	--	--	--	--	--	--	--	--
SEP 14...	3.0	.5	15	142	.19	659	.01	.02

13303300 LEMHI RIVER AT LEADORE, ID

LOCATION.--Lat 44°41'37", long 113°21'57", in NE¼NW¼ sec.28, T.16 N., R.26 E., Lemhi County, Hydrologic Unit 17060204, 0.1 mi (0.16 km) downstream from Canyon Creek and 1.0 mi (1.6 km) northwest of Leadore.
DRAINAGE AREA.--Notdetermined.
PERIOD OF RECORD.--November 1977 to September 1978 (discontinued).
PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: December 1977 to September 1978 (discontinued).
REMARKS.--No temperature record Feb. 10 to Mar. 1, Mar. 20, 21, 24, Apr. 1 to Sept. 30 due to equipment malfunction.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, CHEMICAL (LOW LEVEL) (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)
NOV												
29...	1030	66	367	8.3	2.5	3.5	2	--	--	27	210	16
JAN												
17...	1120	65	387	8.2	-.5	3.0	3	11.0	101	12	200	20
MAR												
02...	1000	50	413	7.5	-12.0	3.0	2	11.6	106	170	220	10
APR												
06...	1115	76	378	8.4	8.5	5.5	1	11.5	114	19	200	12
MAY												
11...	1100	30	398	8.3	6.0	7.0	0	11.8	120	4	220	0
JUN												
08...	1130	31	484	8.3	14.5	10.0	0	11.5	127	7	220	14
JUL												
19...	1000	51	454	8.0	19.0	8.5	0	9.9	104	3	230	17
AUG												
30...	1030	36	460	7.8	16.5	8.0	1	9.4	100	12	220	7

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)
NOV												
29...	49	22	9.3	9	.3	2.1	240	0	200	1.9	.0	--
JAN												
17...	49	20	8.9	9	.3	1.9	220	0	180	2.2	--	--
MAR												
02...	53	22	9.6	8	.3	2.1	260	0	210	13	--	24
APR												
06...	49	20	8.3	8	.3	1.9	230	2	190	1.5	--	20
MAY												
11...	54	21	11	10	.3	2.3	270	0	220	2.2	--	26
JUN												
08...	53	21	12	11	.4	2.0	250	0	210	2.0	--	35
JUL												
19...	56	22	12	10	.3	2.0	260	0	210	4.2	.3	24
AUG												
30...	56	19	12	11	.4	2.1	260	0	213	6.6	--	27

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)
NOV											
29...	8.2	.1	222	.30	39.8	.37	.00	.07	.07	.44	1.9
JAN											
17...	7.5	.1	228	.31	40.2	.30	.00	.06	.08	.38	1.7
MAR											
02...	8.6	.1	297	.40	40.1	.36	.02	.07	.09	.45	2.0
APR											
06...	7.3	.1	218	.30	44.7	.22	.01	.23	.24	.46	2.0
MAY											
11...	9.4	.1	248	.34	20.1	.32	.00	.29	.29	.61	2.7
JUN											
08...	9.5	.1	251	.34	21.1	.27	.00	.16	.16	.43	1.9
JUL											
19...	9.3	.1	268	.36	37.2	.34	.00	.32	.32	.66	2.9
AUG											
30...	9.6	.1	262	.36	25.5	.10	.01	.44	.45	.55	2.4

13303300 LEMHI RIVER AT LEADORE, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ANTIMONY, TOTAL (UG/L AS SB)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)
NOV 29...	.01	.03	100	0	4	400	0	80	0	0	0
JAN 17...	.00	.00	--	--	--	--	--	--	--	--	--
MAR 02...	.01	.03	--	--	--	--	--	--	--	--	--
APR 06...	.01	.03	--	--	--	--	--	--	--	--	--
MAY 11...	.01	.03	--	--	--	--	--	--	--	--	--
JUN 08...	.00	.00	--	--	--	--	--	--	--	--	--
JUL 19...	.01	.03	40	0	3	300	0	80	1	10	0
AUG 30...	.00	.00	--	--	--	--	--	--	--	--	--

DATE	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
NOV 29...	2	120	6	20	.0	2	5	0	0	10	.00
JAN 17...	--	--	--	--	--	--	--	--	--	--	--
MAR 02...	--	--	--	--	--	--	--	--	--	--	--
APR 06...	--	--	--	--	--	--	--	--	--	--	--
MAY 11...	--	--	--	--	--	--	--	--	--	--	--
JUN 08...	--	--	--	--	--	--	--	--	--	--	--
JUL 19...	3	40	3	20	.0	6	4	0	0	10	.00
AUG 30...	--	--	--	--	--	--	--	--	--	--	--

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	DIAZINON, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	MALATHION, TOTAL (UG/L)	METHYL PARATHION, TOTAL (UG/L)	METHYL TRITHION, TOTAL (UG/L)	PARATHION, TOTAL (UG/L)	TOTAL TRITHION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
NOV 29...	1430	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

13303300 LEMHI RIVER AT LEADORE, ID--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1					---	---	3.0	.5	4.5	1.5	---	---
2					---	---	2.5	1.0	4.5	2.0	7.5	1.5
3					---	---	4.5	2.0	5.0	2.0	6.0	1.0
4					---	---	5.0	2.5	4.5	1.5	5.0	2.0
5					---	---	5.0	3.0	5.0	2.5	5.5	2.5
6					---	---	5.0	2.5	5.5	2.5	6.0	2.0
7					---	---	4.5	2.0	6.0	2.0	5.0	1.5
8					---	---	4.0	3.0	5.0	2.0	5.5	2.0
9					---	---	5.0	2.5	3.5	2.0	6.0	2.5
10					---	---	4.5	2.5	---	---	6.5	1.5
11					---	---	4.5	2.0	---	---	5.5	1.0
12					---	---	4.5	2.5	---	---	5.0	1.0
13					---	---	4.0	1.5	---	---	5.0	1.0
14					---	---	4.0	2.5	---	---	3.0	1.0
15					---	---	4.0	2.5	---	---	5.5	1.0
16					---	---	4.0	2.0	---	---	6.5	.5
17					---	---	4.0	2.5	---	---	6.0	.5
18					4.0	2.0	4.5	2.0	---	---	7.5	1.0
19					4.0	2.0	4.5	2.0	---	---	6.0	.5
20					4.5	1.5	4.0	2.5	---	---	7.0	---
21					3.5	2.0	5.0	2.0	---	---	---	---
22					4.5	2.5	4.5	2.0	---	---	7.0	.5
23					5.0	3.5	3.5	1.0	---	---	7.0	2.0
24					5.0	2.5	4.5	1.0	---	---	---	---
25					5.0	2.0	4.5	2.5	---	---	6.5	1.0
26					5.0	2.0	4.5	2.5	---	---	7.5	1.0
27					3.5	2.0	4.5	1.0	---	---	8.0	1.0
28					4.5	1.5	4.5	1.0	---	---	9.0	1.5
29					4.5	2.0	4.5	1.5	---	---	8.5	2.0
30					4.5	3.0	5.0	1.0	---	---	7.5	3.0
31					4.0	1.5	4.0	2.0	---	---	7.5	2.5
MONTH					5.0	1.5	5.0	.5	6.0	1.5	9.0	.5

13304185 BIG SPRING CREEK NEAR LEADORE, ID

LOCATION.--Lat 44°42'29", long 113°24'15", in NW¼NE¼ sec.19, T.16 N., R.26 E., Lemhi County, Hydrologic Unit 17060204, 2.2 mi (3.5 km) downstream from Big Timber Creek and 3.1 mi (5.0 km) northwest of Leadore.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--November 1977 to September 1978 (discontinued).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: December 1977 to September 1978 (discontinued).

REMARKS.--No temperature record July 17, 18 due to equipment malfunction.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 17.0°C June 8, 9; minimum, 1.5°C Jan. 1, 2.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, CHEM-ICAL (LOW LEVEL) (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
NOV 29...	0930	22	270	8.1	2.0	6.5	1	--	--	27	140	2
JAN 17...	0930	23	243	8.1	-2.0	5.5	1	9.6	94	10	140	12
MAR 02...	0945	18	258	7.5	-8.0	3.0	1	11.8	109	0	130	0
APR 06...	0930	24	254	8.2	3.0	6.5	1	10.4	104	4	130	1
MAY 11...	0940	30	295	8.1	6.5	7.0	2	9.7	99	16	150	9
JUN 08...	0945	27	379	8.1	10.0	7.0	1	10.1	111	7	170	18
JUL 19...	0930	28	355	7.9	12.5	9.5	1	9.6	104	0	170	5
AUG 30...	0930	19	311	7.7	12.0	9.0	1	8.2	88	14	160	0

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)
NOV 29...	32	15	11	14	.4	1.9	170	0	140	2.2	.0	--
JAN 17...	31	14	11	15	.4	1.8	150	0	120	1.9	--	--
MAR 02...	30	14	10	14	.4	1.8	170	0	140	8.6	--	16
APR 06...	30	14	11	15	.4	1.7	160	0	130	1.6	--	13
MAY 11...	43	16	11	14	.4	2.0	170	0	140	2.2	--	15
JUN 08...	40	15	11	12	.4	1.8	190	0	160	2.4	--	26
JUL 19...	38	18	12	13	.4	2.2	200	0	160	4.0	.2	14
AUG 30...	37	17	11	15	.4	2.1	200	0	164	6.4	--	16

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)
NOV 29...	7.0	.2	157	.21	9.41	.32	.00	.26	.26	.58	2.6
JAN 17...	9.7	.1	166	.23	10.4	.31	.01	.34	.35	.66	2.9
MAR 02...	9.7	.1	163	.22	8.14	.28	.01	.18	.19	.47	2.1
APR 06...	9.8	.1	155	.21	10.0	.00	.00	1.3	1.3	1.3	5.8
MAY 11...	9.9	.1	182	.25	14.7	.51	.00	.26	.26	.77	3.4
JUN 08...	9.9	.1	205	.28	15.1	.15	.00	.23	.23	.38	1.7
JUL 19...	8.9	.1	210	.29	15.9	.08	.00	1.1	1.1	1.2	5.2
AUG 30...	8.8	.1	205	.28	10.5	.06	.01	.20	.21	.27	1.2

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13304185 BIG SPRING CREEK NEAR LEADORE, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	PHOSPHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	ALUMINUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ANTIMONY, TOTAL (UG/L AS SB)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BERYLLIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)
NOV											
29...	.03	.09	50	0	6	700	0	80	0	0	0
JAN											
17...	.02	.06	--	--	--	--	--	--	--	--	--
MAR											
02...	.02	.06	--	--	--	--	--	--	--	--	--
APR											
06...	.03	.09	--	--	--	--	--	--	--	--	--
MAY											
11...	.02	.06	--	--	--	--	--	--	--	--	--
JUN											
08...	.03	.09	--	--	--	--	--	--	--	--	--
JUL											
19...	.02	.06	40	0	3	300	0	80	1	10	0
AUG											
30...	.01	.03	--	--	--	--	--	--	--	--	--

DATE	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MOLYBDENUM, TOTAL RECOV-ERABLE (UG/L AS MO)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
NOV											
29...	3	70	2	0	.0	2	6	0	0	6	.00
JAN											
17...	--	--	--	--	--	--	--	--	--	--	--
MAR											
02...	--	--	--	--	--	--	--	--	--	--	--
APR											
06...	--	--	--	--	--	--	--	--	--	--	--
MAY											
11...	--	--	--	--	--	--	--	--	--	--	--
JUN											
08...	--	--	--	--	--	--	--	--	--	--	--
JUL											
19...	3	30	4	10	.0	5	4	0	2	10	.00
AUG											
30...	--	--	--	--	--	--	--	--	--	--	--

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	DI-AZINON, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	MALATHION, TOTAL (UG/L)	METHYL PARATHION, TOTAL (UG/L)	METHYL TRITHION, TOTAL (UG/L)	PARATHION, TOTAL (UG/L)	TOTAL TRITHION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
NOV											
29...	0830	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
JUL											
19...	0830	--	--	--	--	--	--	--	.00	.00	.00

13304185 BIG SPRING CREEK NEAR LEADORE, ID--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1					---	---	6.0	1.5	7.0	3.5	9.5	3.5
2					---	---	5.5	1.5	8.0	4.5	9.0	3.0
3					---	---	8.0	3.5	8.5	4.5	8.0	3.0
4					---	---	7.0	4.0	7.5	3.5	8.5	4.0
5					---	---	8.0	4.5	8.5	5.0	10.5	5.0
6					---	---	7.5	5.0	9.5	4.5	11.5	4.5
7					---	---	8.0	4.0	8.0	4.5	9.0	4.0
8					---	---	7.0	5.0	8.5	4.0	8.5	4.5
9					---	---	8.0	4.5	6.5	4.0	10.5	5.5
10					---	---	7.5	4.5	8.0	4.5	11.0	4.5
11					---	---	8.0	4.5	8.0	4.0	10.5	3.5
12					---	---	8.0	5.0	7.5	2.5	9.5	4.5
13					---	---	7.5	3.5	7.5	2.5	9.5	4.0
14					---	---	7.0	5.0	9.5	3.0	7.5	4.0
15					---	---	7.5	5.0	8.5	3.0	10.5	4.5
16					---	---	7.0	4.5	9.0	3.5	11.0	4.0
17					---	---	7.5	5.0	8.5	3.0	11.0	4.5
18					7.0	---	8.0	4.5	7.5	4.0	12.0	5.0
19					7.0	3.5	7.5	4.0	9.5	5.5	11.5	5.0
20					6.5	2.5	8.0	5.5	10.0	4.5	12.0	5.0
21					5.0	3.5	8.5	4.0	9.5	3.5	12.5	5.0
22					6.5	4.0	8.0	4.0	10.0	3.5	12.0	5.5
23					7.5	5.5	6.0	3.0	8.5	3.0	11.5	6.0
24					8.0	5.0	6.0	2.5	9.0	4.5	11.0	5.0
25					8.0	4.0	8.5	4.5	9.5	5.5	12.5	5.5
26					8.0	4.0	8.0	5.0	9.5	5.0	12.5	5.0
27					6.0	3.0	8.5	3.0	10.0	4.5	12.5	5.5
28					6.5	3.0	7.5	3.5	9.0	3.5	13.0	5.5
29					7.0	3.5	8.0	3.5	---	---	13.0	5.5
30					6.5	4.5	8.0	2.5	---	---	12.0	6.5
31					6.0	2.5	7.5	4.5	---	---	12.5	6.0
MONTH					8.0	2.5	8.5	1.5	10.0	2.5	13.0	3.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	11.5	6.0	10.5	6.5	16.0	7.0	13.5	8.0	15.0	9.0	14.5	9.0
2	10.5	5.0	12.5	6.5	16.5	6.5	14.0	8.5	15.0	9.0	15.0	8.5
3	9.5	4.5	13.0	5.0	13.0	7.5	12.5	8.0	15.5	9.0	15.5	10.0
4	11.0	5.0	10.0	4.5	16.0	7.0	11.5	8.5	15.0	9.0	15.5	10.0
5	12.0	5.0	7.0	4.0	16.5	7.0	12.0	8.5	14.0	9.5	11.5	10.5
6	10.0	5.5	9.5	5.5	16.5	7.5	14.0	8.5	15.5	9.5	14.5	10.5
7	9.5	6.0	11.0	5.5	16.5	7.5	14.5	8.5	15.0	9.0	15.5	10.0
8	12.5	5.0	13.0	5.0	17.0	7.0	14.5	8.5	14.5	9.0	14.5	8.5
9	12.5	5.0	12.5	5.5	17.0	8.0	15.5	9.0	14.5	9.0	14.5	8.0
10	13.5	5.0	14.0	6.5	11.5	7.5	13.5	9.5	13.5	9.5	11.5	9.5
11	11.5	4.0	11.0	6.0	14.5	7.0	14.5	8.5	14.5	9.5	13.0	8.5
12	13.0	4.0	14.5	5.5	15.5	7.0	14.0	8.5	13.0	9.5	10.5	8.5
13	11.5	4.0	15.5	7.5	14.5	8.0	15.5	9.0	12.5	10.0	12.5	8.5
14	11.5	4.5	16.0	7.5	15.5	7.5	16.0	8.5	12.5	9.5	13.0	8.0
15	12.0	5.0	12.5	5.0	15.5	7.5	14.5	9.5	13.0	8.5	14.5	8.0
16	11.5	5.0	12.0	4.5	15.0	7.0	12.5	9.5	12.0	9.5	14.0	8.0
17	10.5	4.5	9.5	5.5	16.0	7.0	---	---	13.5	8.5	12.5	7.5
18	13.0	4.0	8.0	6.5	12.5	7.5	---	---	14.0	8.5	9.0	5.5
19	12.5	4.5	13.0	6.5	15.0	8.0	13.5	---	13.0	8.5	13.0	7.5
20	9.5	5.5	14.5	6.5	16.5	6.5	12.5	9.5	14.5	9.0	13.0	6.5
21	9.0	4.5	14.5	7.0	16.0	8.0	14.5	9.0	13.5	8.5	12.0	7.0
22	12.5	4.5	13.5	7.5	15.5	7.0	15.0	9.0	13.5	9.0	14.0	7.5
23	13.0	4.5	13.0	7.0	16.5	7.5	15.0	9.0	14.0	8.0	14.5	8.0
24	12.0	5.0	11.0	5.5	13.5	7.5	14.5	9.5	14.5	8.5	15.0	8.0
25	10.5	6.5	13.0	6.5	13.5	7.5	16.0	9.0	15.5	8.5	15.0	8.5
26	12.5	6.0	14.5	5.5	14.0	7.5	15.5	9.0	14.5	9.0	15.0	8.5
27	11.5	6.0	15.5	6.0	16.5	7.5	14.0	10.0	14.5	9.5	13.5	9.0
28	11.5	6.0	16.0	6.5	16.5	8.0	15.0	10.0	14.5	8.5	13.0	9.0
29	14.0	6.5	14.5	6.5	16.0	8.5	14.5	9.5	14.5	8.5	14.0	8.0
30	9.5	7.0	13.0	6.0	16.0	8.5	15.5	9.0	13.5	9.0	13.5	8.0
31	---	---	11.5	6.5	---	---	15.0	9.0	15.5	9.5	---	---
MONTH	14.0	4.0	16.0	4.0	17.0	6.5	16.0	8.0	15.5	8.0	15.5	5.5
YEAR	17.0	1.5										

13305000 LEMHI RIVER NEAR LEMHI, ID

LOCATION.--Lat 44°56'24", long 113°38'16", in NW¼NE¼ sec.32, T.19 N., R.24 E., Lemhi County, Hydrologic Unit 17060204, on right bank 35 ft (10.7 m) upstream from bridge on State Highway 28, 1.4 mi (2.3 km) south of Tendoy, 1.8 mi (2.9 km) upstream from Agency Creek, 6.2 mi (10.0 km) north of Lemhi, and at mile 28.8 (46.3 km).

DRAINAGE AREA.--895 mi^2 (2,320 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1938 to August 1939, April 1955 to September 1963, water years 1964-67 (annual maximum), August 1967 to current year.

REVISED RECORDS.--WSP 1397: 1939.

GAGE.--Water-stage recorder. Altitude of gage is 4,960 ft (1,512 m) from topographic map. Prior to Aug. 25, 1967, at site 1.5 mi (2.4 km) upstream at different datum. November 1938 to August 1939, nonrecording gage, Apr. 29, 1955, to Sept. 30, 1963, nonrecording gage and supplemental crest-stage gage, Oct. 1, 1963, to Aug. 24, 1967, crest-stage gage only.

REMARKS.--Records fair. State Fish Hatchery on Hayden Creek several miles upstream since fall of 1966 may affect maximums and minimums. Diversions above station for irrigation of about 25,500 acres (10,300 hm^2) of which about 200 acres (811 hm^2) are by withdrawals from ground water (1966 determination).

AVERAGE DISCHARGE.--19 years (1956-63, 1968-78), 278 ft^3/s (7.873 m^3/s), 201,400 acre-ft/yr (248 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,990 ft^3/s (56.4 m^3/s) July 6, 1975, gage height, 6.39 ft (1.948 m) in gage well, 6.72 ft (2.048 m) from outside gage); minimum, 46 ft^3/s (1.30 m^3/s) Apr. 30, 1977, gage height, 2.53 ft (0.771 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 708 ft^3/s (20.1 m^3/s) June 11, gage height, 4.61 ft (1.405 m); minimum, 110 ft^3/s (3.12 m^3/s) Sept. 4, 5, gage height, 3.09 ft (0.942 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 20-23, Dec. 21-23, 28-30, Jan. 1-5)

3.1	111	4.0	350
3.5	196	4.8	731

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	207	222	222	190	220	222	271	199	222	517	262	130
2	207	225	228	170	220	214	259	189	217	503	253	131
3	214	225	236	150	220	204	239	189	239	517	239	128
4	212	225	233	170	220	222	233	186	268	498	228	124
5	209	228	231	190	220	228	233	194	321	489	212	124
6	217	231	225	204	222	233	228	207	405	448	209	174
7	217	228	231	201	222	233	236	207	503	426	196	184
8	222	222	209	204	222	233	242	191	570	439	176	189
9	220	222	209	207	222	239	228	184	611	471	169	181
10	217	236	217	209	222	244	220	186	692	453	156	184
11	214	242	214	209	222	239	217	186	669	448	167	244
12	212	244	220	212	204	236	209	184	570	426	164	244
13	204	247	222	214	214	233	201	179	550	405	156	247
14	204	242	228	214	233	231	196	176	600	389	181	239
15	204	244	242	217	217	228	194	189	585	397	179	239
16	207	242	233	214	217	225	199	217	555	413	174	231
17	209	233	212	217	217	242	196	214	507	409	181	225
18	201	222	220	220	217	256	189	239	489	369	191	259
19	199	204	204	217	220	280	189	262	512	353	191	314
20	199	190	196	220	225	287	186	236	485	342	184	331
21	199	170	180	220	228	280	189	222	485	353	179	346
22	196	180	180	220	225	280	184	233	560	331	174	335
23	196	200	190	214	228	287	196	259	555	317	162	324
24	201	222	209	212	231	287	191	290	560	300	156	324
25	204	228	209	217	233	262	174	284	565	277	156	317
26	207	250	207	220	233	259	174	262	517	265	151	303
27	207	242	196	217	233	265	169	239	471	250	145	277
28	209	236	170	217	228	265	167	231	480	259	139	268
29	220	236	160	217	---	268	169	244	507	277	130	265
30	225	231	180	209	---	271	184	244	517	274	120	259
31	222	---	199	220	---	268	---	236	---	262	128	---
TOTAL	6481	6769	6512	6432	6235	7721	6162	6758	14787	11877	5508	7140
MEAN	209	226	210	207	223	249	205	218	493	383	178	238
MAX	225	250	242	220	233	287	271	290	692	517	262	346
MIN	196	170	160	150	204	204	167	176	217	250	120	124
AC-FT	12860	13430	12920	12760	12370	15310	12220	13400	29330	23560	10930	14160

CAL YR 1977 TOTAL 71893 MEAN 197 MAX 380 MIN 51 AC-FT 142600
WTR YR 1978 TOTAL 92382 MEAN 253 MAX 692 MIN 120 AC-FT 183200

13305000 LEMHI RIVER NEAR LEMHI, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

REMARKS.--Miscellaneous chemical data published for water years 1973-74.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT 21...	1115	208	--	--	21.0	7.0	--	--	--
DEC 08...	1105	184	371	--	1.5	.0	--	--	--
JAN 20...	1025	214	378	--	2.5	2.5	--	--	--
MAR 10...	1125	248	334	--	14.0	4.5	--	--	--
APR 22...	0945	198	359	--	12.0	4.0	--	--	--
MAY 27...	1150	234	302	--	22.5	9.5	--	--	--
JUN 28...	1300	492	259	7.7	25.0	11.0	120	12	31
AUG 09...	1430	169	403	--	25.0	16.5	--	--	--
SEP 13...	1730	236	433	8.5	14.0	11.0	210	8	54

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT 21...	--	--	--	--	--	--	--	--	--
DEC 08...	--	--	--	--	--	--	--	--	--
JAN 20...	--	--	--	--	--	--	--	--	--
MAR 10...	--	--	--	--	--	--	--	--	--
APR 22...	--	--	--	--	--	--	--	--	--
MAY 27...	--	--	--	--	--	--	--	--	--
JUN 28...	10	11	17	.4	1.9	130	0	110	19
AUG 09...	--	--	--	--	--	--	--	--	--
SEP 13...	19	19	16	.6	3.5	240	5	210	38

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 21...	--	--	--	--	--	--	--	--
DEC 08...	--	--	--	--	--	--	--	--
JAN 20...	--	--	--	--	--	--	--	--
MAR 10...	--	--	--	--	--	--	--	--
APR 22...	--	--	--	--	--	--	--	--
MAY 27...	--	--	--	--	--	--	--	--
JUN 28...	5.5	.1	13	156	.21	207	.04	.05
AUG 09...	--	--	--	--	--	--	--	--
SEP 13...	12	.2	24	293	.40	187	.09	.04

13307000 SALMON RIVER NEAR SHOUP, ID

LOCATION.--Lat 45°19'20", long 114°26'23", in NE¼SW¼ sec.14, T.23 N., R.17 E., Lemhi County, Hydrologic Unit 17060203, Salmon National Forest, on right bank 0.6 mi (1.0 km) upstream from Owl Creek, 2.3 mi (3.7 km) downstream from Panther Creek, 9 mi (14.5 km) southwest of Shoup, and at mile 207.8 (334.4 km).

DRAINAGE AREA.--6,270 mi² (16,240 km²), approximately. Mean altitude, 7,140 ft (2,176 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1944 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,153.7 ft (961.25 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 18, 1951, nonrecording gage at different sites approximately 1.3 mi (2.1 km) upstream at different datums.

REMARKS.--Records good except those for March and April, which are fair. Diversions above station for irrigation of about 149,000 acres (60,300 hm²) of which about 1,200 acres (486 hm²) are by withdrawals from ground water (1966 determination).

AVERAGE DISCHARGE.--34 years, 3,072 ft³/s (87.00 m³/s), 2,226,000 acre-ft/yr (2,745 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,700 ft³/s (727.8 m³/s) June 18, 1974, gage height, 13.13 ft (4.002 m); minimum, 710 ft³/s (20.1 m³/s) Aug. 20, 21, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 15,600 ft³/s (442 m³/s) June 11, gage height, 9.65 ft (2.941 m); minimum, 1,060 ft³/s (30.0 m³/s) Nov. 20, gage height, 1.97 ft (0.600 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Dec. 3-7, Dec. 14 to Mar. 6)

2.0	1,090	7.0	9,080
3.0	2,240	9.5	15,200
5.0	5,210		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1860	1670	1870	1710	1440	1610	5900	4260	6650	8260	3020	1600
2	1900	1710	1980	1620	1590	1500	5650	4430	6330	8290	2850	1550
3	1840	1670	2040	1780	1580	1460	4950	4640	6430	8300	2710	1520
4	1820	1720	1990	2160	1570	1530	4470	4690	7060	8060	2560	1510
5	1820	1700	1900	2360	1540	1580	4000	4560	8020	7870	2470	1500
6	1790	1740	1840	2150	1530	1630	3700	4290	9720	7480	2430	1620
7	1800	1680	1820	2140	1580	1670	3400	4000	11700	7010	2380	2080
8	1810	1640	1740	2040	1610	1750	3130	3740	13300	6800	2280	2520
9	1800	1580	1640	1930	1610	1740	3020	3540	14200	7170	2150	2500
10	1780	1610	1670	1880	1580	1900	3040	3690	15100	7000	2050	2330
11	1750	1650	1780	1890	1560	1950	3090	4140	15100	6690	2010	2400
12	1730	1720	1760	1810	1470	1960	3080	4500	12900	6550	1940	2540
13	1730	1730	1810	1740	1380	1930	2970	4460	11100	6260	1910	2590
14	1730	1720	2040	1740	1500	1890	2930	4530	10800	5880	2070	2550
15	1710	1740	2740	1700	1550	1840	2920	5230	11200	5560	2210	2450
16	1680	1730	2380	1720	1550	1790	2970	6400	11100	5600	2190	2370
17	1660	1700	2080	1690	1510	1830	2900	6470	10300	5650	2220	2300
18	1630	1620	1990	1760	1460	2000	2820	6040	9650	5380	2250	2280
19	1580	1340	1800	1730	1450	2320	2770	5820	10100	4960	2210	2470
20	1570	1150	1470	1710	1520	2600	2770	5530	9670	4670	2140	2570
21	1570	1230	1480	1680	1580	2860	2810	5490	9230	4440	2080	2590
22	1570	1290	1640	1640	1540	3150	2760	6020	9330	4210	1980	2610
23	1570	1610	1860	1610	1510	3500	2660	7100	9480	3970	1900	2580
24	1560	1830	2100	1480	1550	3720	2560	8160	9480	3730	1840	2530
25	1530	1890	1900	1440	1650	3770	2510	8300	9630	3500	1780	2480
26	1580	2060	1800	1450	1820	3710	2630	7530	9420	3360	1710	2390
27	1570	2080	1540	1620	1800	3790	3060	6840	8620	3240	1670	2280
28	1610	2020	1450	1570	1690	4150	3430	6410	8020	3090	1630	2200
29	1610	1950	1560	1500	---	4500	3630	6420	7710	3200	1600	2160
30	1650	1890	1810	1490	---	4910	3820	6810	8100	3300	1580	2120
31	1670	---	1750	1450	---	5300	---	6940	---	3200	1590	---
TOTAL	52480	50670	57230	54190	43720	79860	100350	170980	299450	172680	65410	67190
MEAN	1693	1689	1846	1748	1561	2576	3345	5515	9982	5570	2110	2240
MAX	1900	2080	2740	2360	1820	5300	5900	8300	15100	8300	3020	2610
MIN	1530	1150	1450	1440	1380	1460	2510	3540	6330	3090	1580	1500
AC-FT	104100	100500	113500	107500	86720	158400	199000	339100	594000	342500	129700	133300

CAL YR 1977 TOTAL 621860 MEAN 1704 MAX 5300 MIN 796 AC-FT 1233000
WTR YR 1978 TOTAL 1214210 MEAN 3327 MAX 15100 MIN 1150 AC-FT 2408000

NOTE.--No gage-height record Mar. 3 to Apr. 21.

13307000 SALMON RIVER NEAR SHOUP, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
OCT 20...	1415	1560	164	--	21.0	9.5	--	--	--
JAN 19...	1220	1690	264	--	6.0	.0	--	--	--
MAR 09...	1245	1810	252	--	17.0	5.0	--	--	--
APR 21...	1325	2830	187	--	10.0	9.0	--	--	--
MAY 26...	1320	7630	153	--	21.0	4.0	--	--	--
JUN 29...	1420	8050	142	7.8	32.0	14.5	60	4	18
AUG 09...	1040	2070	224	--	23.5	19.0	--	--	--
SEP 14...	1145	2520	251	8.3	14.5	12.5	120	4	34

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)
OCT 20...	--	--	--	--	--	--	--	--	--
JAN 19...	--	--	--	--	--	--	--	--	--
MAR 09...	--	--	--	--	--	--	--	--	--
APR 21...	--	--	--	--	--	--	--	--	--
MAY 26...	--	--	--	--	--	--	--	--	--
JUN 29...	3.7	6.3	18	.4	1.2	68	0	56	9.3
AUG 09...	--	--	--	--	--	--	--	--	--
SEP 14...	8.2	13	19	.5	2.2	140	0	110	24

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT 20...	--	--	--	--	--	--	--	--
JAN 19...	--	--	--	--	--	--	--	--
MAR 09...	--	--	--	--	--	--	--	--
APR 21...	--	--	--	--	--	--	--	--
MAY 26...	--	--	--	--	--	--	--	--
JUN 29...	2.0	.2	12	86	.12	1870	.06	.04
AUG 09...	--	--	--	--	--	--	--	--
SEP 14...	5.1	.5	17	173	.24	1180	.00	.03

13309220 MIDDLE FORK SALMON RIVER AT MIDDLE FORK LODGE, NEAR YELLOW PINE, ID

LOCATION.--Lat 44°43'11", long 115°00'48", in NW¼SW¼SW¼ sec.16, T.16 N., R.12 E., Valley County, Hydrologic Unit 17060205, Boise National Forest, on left bank at Middle Fork Lodge, 325 ft (99.1 m) downstream from Middle Fork Lodge bridge, 0.4 mi (0.6 km) upstream from Thomas Creek, 1.8 mi (2.9 km) downstream from Marble Creek, 29 mi (47 km) southeast of Yellow Pine, and at mile 61.0 (98.1 km).

DRAINAGE AREA.--770 mi^2 (1,990 km^2).

PERIOD OF RECORD.--April 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,380 ft (1,340 m) from topographic map.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--5 years, 1,649 ft^3/s (46.70 m^3/s), 1,195,000 acre-ft/yr (1,473 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,900 ft^3/s (592 m^3/s) June 16, 1974, gage height, 10.80 ft (3.292 m); minimum, 210 ft^3/s (5.95 m^3/s) Nov. 9, 1977, gage height, 1.29 ft (0.393 m).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 4,000 ft^3/s (113 m^3/s) and maximum (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)	Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)
May 15	1800	6100	173	5.74	1.750	June 9	0230	*9350	265	7.19	2.192
May 23	1300	6160	174	5.77	1.759						

Minimum discharge, 210 ft^3/s (5.95 m^3/s) Nov. 9, gage height, 1.29 ft (0.393 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

1.4	271	3.0	1,600	5.0	4,640
1.6	392	3.5	2,210	6.0	6,640
2.0	670	4.0	2,930	7.0	8,890
2.5	1,090	4.5	3,750	7.2	9,370

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	692	415	504	336	464	411	2380	2730	4350	4920	1340	817
2	581	434	602	312	450	405	2120	2960	4590	4770	1300	793
3	518	446	610	491	450	379	1740	3170	5100	4420	1270	769
4	470	428	560	539	417	464	1510	3220	5750	4240	1240	754
5	456	440	525	518	417	444	1340	2910	6830	4130	1210	769
6	445	465	518	484	430	444	1220	2620	7900	3870	1180	833
7	445	433	511	464	424	450	1170	2520	8680	4060	1150	982
8	443	381	457	457	424	464	1140	2460	8990	4680	1120	1080
9	429	294	398	457	411	504	1130	2620	9130	4330	1100	946
10	422	450	511	464	373	532	1200	3560	9060	3870	1060	893
11	411	491	504	464	424	553	1440	4130	8110	3610	1030	991
12	405	477	497	444	405	574	1520	3750	6790	3350	991	937
13	404	477	497	430	367	539	1500	3660	6340	3100	1040	902
14	402	464	632	437	411	497	1430	4350	6600	2950	1190	876
15	399	477	919	444	411	464	1430	5970	6660	2840	1110	842
16	388	491	769	437	379	457	1480	5490	6200	2730	1130	809
17	383	430	662	437	312	504	1390	4770	5670	2570	1140	801
18	379	336	647	417	386	610	1290	4330	5550	2420	1070	809
19	379	306	567	398	430	738	1280	4210	5470	2280	1000	801
20	377	312	424	405	398	817	1320	4210	5350	2150	964	793
21	373	348	444	405	386	902	1320	4700	5450	2020	928	785
22	371	437	553	405	411	982	1250	5750	5670	1930	919	777
23	370	497	610	354	437	1060	1190	6030	5590	1830	973	761
24	366	491	595	336	477	1040	1170	5650	5570	1770	928	738
25	377	491	553	464	484	946	1260	4880	5570	1670	876	730
26	442	700	511	484	470	973	1470	4280	5040	1600	859	715
27	434	708	405	417	457	1120	1870	3990	4620	1550	842	708
28	415	647	354	405	424	1310	2120	4060	4570	1540	825	692
29	404	617	504	450	---	1580	2340	4570	4710	1540	809	685
30	434	539	560	392	---	1820	2490	4680	4870	1500	809	677
31	435	---	504	444	---	2040	---	4400	---	1410	833	---
TOTAL	13249	13922	16907	13391	11729	24023	45510	126630	184780	89650	32236	24465
MEAN	427	464	545	432	419	775	1517	4085	6159	2892	1040	816
MAX	692	708	919	539	484	2040	2490	6030	9130	4920	1340	1080
MIN	366	294	354	312	312	379	1130	2460	4350	1410	809	677
CFSM	.56	.60	.71	.56	.54	1.01	1.97	5.31	8.00	3.76	1.35	1.06
IN.	.64	.67	.82	.65	.57	1.16	2.20	6.12	8.93	4.33	1.56	1.18
AC-FT	26280	27610	33540	26560	23260	47650	90270	251200	366500	177800	63940	48530

CAL YR 1977 TOTAL 206880 MEAN 567 MAX 1860 MIN 249 CFSM .74 IN 9.99 AC-FT 410300
WTR YR 1978 TOTAL 596492 MEAN 1634 MAX 9130 MIN 294 CFSM 2.12 IN 28.82 AC-FT 1183000

13310700 SOUTH FORK SALMON RIVER NEAR KRASSEL RANGER STATION, ID

LOCATION.--Lat 44°59'30", long 115°43'30", in NE¼ sec.16, T.19 N., R.6 E., Valley County, Hydrologic Unit 17060208, Payette National Forest, on right bank 0.6 mi (1.0 km) upstream from Fitsum Creek, 1.4 mi (2.3 km) downstream from Krassel ranger station, 2 mi (3.2 km) upstream from mouth of East Fork of South Fork Salmon River, 20 mi (32 km) east of McCall, and at mile 39.2 (63.1 km).

DRAINAGE AREA.--330 mi² (850 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,750 ft (1,143 m), from topographic map.

REMARKS.--Records good.

AVERAGE DISCHARGE.--12 years, 575 ft³/s (16.28 m³/s), 23.66 in/yr (601 mm/yr), 416,600 acre-ft/yr (514 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,740 ft³/s (191 m³/s) June 17, 1974, gage height, 10.00 ft (3.048 m); minimum, 38 ft³/s (1.08 m³/s) Nov. 27, 1976, gage height, 1.11 ft (0.338 m), result of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 28, 1948, reached a discharge of 5,200 ft³/s (147 m³/s) by slope-area measurement at site 2.3 mi (3.7 km) upstream.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,500 ft³/s (42.5 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 15	1700	2430	68.8	6.04	1.841	June 9	0300	*3430	97.1	*7.11	2.167

Minimum daily discharge, 96 ft³/s (2.72 m³/s) Nov. 19, but may have been less during period of ice effect.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 19, 20, Dec. 8, 9, Jan. 2, 7)

1.5	82	4.0	952
2.0	169	5.0	1,610
2.5	296	6.0	2,390
3.0	467	7.0	3,320

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	287	161	238	191	167	190	1470	1360	1490	1830	348	187
2	242	165	273	210	170	183	1370	1430	1630	1650	331	182
3	218	171	387	230	173	186	1170	1460	1860	1630	318	176
4	201	163	326	250	173	197	1030	1440	2180	1560	305	172
5	188	163	274	225	169	197	920	1320	2550	1440	295	173
6	177	177	250	220	185	202	847	1220	2990	1350	285	200
7	174	166	240	215	188	261	805	1160	3180	1450	272	349
8	170	146	210	210	205	204	744	1120	3240	1430	262	345
9	164	130	200	205	199	249	716	1170	3290	1360	252	280
10	159	159	216	203	191	279	721	1060	3180	1270	245	254
11	153	149	216	200	192	276	803	1750	2670	1190	237	303
12	149	146	227	196	183	275	804	1630	2290	1090	228	275
13	146	146	237	185	166	255	784	1660	2200	1010	244	258
14	146	146	502	185	181	240	768	1900	2300	955	357	241
15	140	154	1180	185	173	224	742	2360	2230	919	287	227
16	137	169	842	185	162	220	844	2250	2040	880	321	215
17	135	145	572	185	147	232	789	1990	1920	814	313	210
18	131	115	473	185	179	256	730	1820	1970	745	278	215
19	129	96	399	175	175	302	724	1740	1920	669	257	212
20	126	108	295	175	165	353	776	1730	1960	642	247	207
21	125	111	281	175	162	406	757	1890	2020	604	236	204
22	123	153	356	175	168	462	709	2250	2040	564	233	199
23	121	221	338	150	177	551	676	2240	2100	530	259	192
24	125	231	308	145	191	590	663	2060	2110	501	238	186
25	135	234	286	160	207	553	706	1840	2150	476	221	182
26	202	425	269	160	210	579	816	1640	1810	450	212	177
27	186	427	237	172	209	673	1160	1490	1700	430	207	172
28	158	317	196	167	197	803	1170	1460	1820	427	202	168
29	155	275	288	175	---	955	1210	1610	1880	425	198	166
30	163	244	262	154	---	1150	1260	1600	1910	391	194	164
31	171	---	233	164	---	1290	---	1500	---	367	192	---
TOTAL	5038	5617	10613	5865	5064	12744	26734	51750	66630	29069	8074	6491
MEAN	162	187	342	189	181	411	891	1669	2221	938	260	216
MAX	287	427	1180	250	210	1290	1470	2360	3290	1830	357	349
MIN	121	96	196	145	147	183	663	1120	1490	367	192	164
CFSM	.49	.57	1.04	.57	.55	1.25	2.70	5.06	6.73	2.84	.79	.66
IN.	.57	.63	1.20	.66	.57	1.44	3.01	5.83	7.51	3.28	.91	.73
AC-FT	9990	11140	21050	11630	10040	25280	53030	102600	132200	57660	16010	12870

CAL YR 1977 TOTAL 74891 MEAN 205 MAX 1180 MIN 74 CFSM .62 IN 8.42 AC-FT 148100
WTR YR 1978 TOTAL 233687 MEAN 640 MAX 3290 MIN 96 CFSM 1.94 IN 26.34 AC-FT 463500

13310700 SOUTH FORK SALMON RIVER NEAR KRASSEL RANGER STATION, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974, 1976 to current year.
REMARKS.--Miscellaneous chemical data published for water years 1973, 1975.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
OCT									
28...	1635	157	49	--	9.0	7.0	--	--	--
JAN									
26...	1430	177	63	--	7.5	2.0	--	--	--
APR									
10...	1205	714	66	--	18.0	5.5	--	--	--
27...	1300	1140	25	--	13.0	5.5	--	--	--
JUN									
06...	1600	2900	18	--	26.5	9.0	--	--	--
JUL									
19...	1330	670	31	6.7	23.0	14.0	12	0	3.7
SEP									
14...	1435	238	45	7.5	20.0	11.5	16	0	5.0

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)
OCT									
28...	--	--	--	--	--	--	--	--	--
JAN									
26...	--	--	--	--	--	--	--	--	--
APR									
10...	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--
JUN									
06...	--	--	--	--	--	--	--	--	--
JUL									
19...	.6	2.7	33	.3	.3	14	0	11	1.7
SEP									
14...	.8	4.5	43	.6	.5	23	0	19	2.4

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT								
28...	--	--	--	--	--	--	--	--
JAN								
26...	--	--	--	--	--	--	--	--
APR								
10...	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--
JUN								
06...	--	--	--	--	--	--	--	--
JUL								
19...	.4	.2	11	28	.04	50.7	.01	.01
SEP								
14...	.6	.5	15	40	.05	25.7	.00	.00

13313000 JOHNSON CREEK AT YELLOW PINE, ID

LOCATION.--Lat 44°57'44", long 115°29'58", in NE¼ sec.29, T.19 N., R.8 E., Valley County, Hydrologic Unit 17060208, Boise National Forest, on right bank 700 ft (213 m) upstream from mouth and 0.2 mi (0.3 km) southwest of Yellow Pine.

DRAINAGE AREA.--213 mi² (552 km²). Mean altitude, 7,170 ft (2,185 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1928 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,655.75 ft (1,419.073 m) National Geodetic Vertical Datum of 1929. Prior to July 19 1977, at site 385 ft (117 m) upstream at datum 1.95 ft (0.594 m) higher.

REMARKS.--Records good. Small diversion from Johnson Creek basin to Deadwood River basin (see REMARKS for sta 13236000).

AVERAGE DISCHARGE.--50 years, 351 ft³/s (9.94 m³/s), 22.38 in/yr (568 mm/yr), 254,300 acre-ft/yr (314 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,230 ft³/s (176 m³/s) June 17, 1974, gage height, 8.32 ft (2.536 m); minimum, 21 ft³/s (0.59 m³/s) Nov. 30, 1954, gage height, 0.66 ft (0.201 m).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,800 ft³/s (51 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 15	0200	1940	54.9	5.05	1.539	June 8	2300	*3090	87.5	*6.16	1.878
May 22	0230	2070	58.6	5.18	1.579						

Minimum discharge, 29 ft³/s (0.82 m³/s) Nov. 19, gage height, 1.82 ft (0.555 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

1.9	40	4.0	1,045
2.2	101	5.0	1,895
2.6	204	6.0	2,910
3.0	379		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	169	106	126	72	95	84	486	718	1270	1410	221	119
2	145	108	138	84	94	78	461	807	1460	1330	211	116
3	130	93	133	103	94	86	413	893	1680	1270	202	112
4	121	114	128	123	92	94	384	887	1950	1190	195	110
5	112	108	121	114	93	91	350	773	2280	1110	188	110
6	108	108	121	112	96	91	327	703	2570	1050	180	121
7	106	101	119	110	94	89	310	683	2690	1090	172	193
8	106	78	108	110	95	90	291	693	2740	1320	166	211
9	101	74	106	110	93	97	283	805	2810	1140	161	166
10	99	101	119	110	89	95	295	1290	2610	1010	158	156
11	93	95	114	110	92	93	343	1290	2140	921	153	182
12	93	97	112	108	90	96	343	1080	1890	823	149	170
13	90	95	114	103	85	91	343	1150	1920	756	161	158
14	90	88	148	103	89	92	335	1480	1980	705	213	148
15	88	97	205	103	87	86	347	1840	1850	666	184	140
16	86	97	169	103	78	91	362	1510	1680	623	203	133
17	82	74	158	103	75	96	335	1490	1590	570	199	130
18	82	60	155	99	91	102	315	1230	1620	526	178	133
19	80	48	145	99	91	107	317	1260	1560	484	164	133
20	80	58	117	99	87	114	336	1380	1560	448	154	133
21	78	58	119	99	85	121	325	1590	1570	418	148	130
22	76	72	145	97	86	133	309	1680	1550	384	148	128
23	76	86	143	84	86	141	304	1700	1610	356	166	123
24	78	88	138	72	90	146	301	1430	1580	329	152	121
25	84	95	130	105	91	147	329	1260	1610	306	142	119
26	138	145	126	103	90	157	409	1130	1390	289	136	114
27	130	180	99	95	89	177	556	1090	1340	273	133	112
28	110	166	99	95	86	205	592	1250	1430	272	130	110
29	106	153	140	96	---	250	632	1480	1430	279	130	108
30	110	130	128	87	---	316	667	1390	1480	251	128	106
31	108	---	116	96	---	398	---	1220	---	234	122	---
TOTAL	3155	2973	4039	3127	2507	4054	11400	37182	54840	21833	5147	4047
MEAN	102	99.1	130	101	89.6	131	380	1199	1828	704	166	135
MAX	169	180	205	123	96	398	667	1840	2810	1410	221	211
MIN	76	48	99	72	75	78	283	683	1270	234	122	106
CFSM	.48	.47	.61	.47	.42	.62	1.78	5.63	8.58	3.31	.78	.63
IN.	.55	.52	.71	.55	.44	.71	1.99	6.49	9.58	3.81	.90	.71
AC-FT	6260	5900	8010	6200	4970	8040	22610	73750	108800	43310	10210	8030

CAL YR 1977 TOTAL 47705 MEAN 131 MAX 663 MIN 41 CFSM .62 IN 8.33 AC-FT 94620
WTR YR 1978 TOTAL 154304 MEAN 423 MAX 2810 MIN 48 CFSM 1.99 IN 26.95 AC-FT 306100

13313000 JOHNSON CREEK AT YELLOW PINE, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

REMARKS.--Miscellaneous chemical data published for water years 1973-74.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT									
28...	1115	114	70	--	4.5	4.5	--	--	--
JAN									
26...	1514	101	113	--	1.0	1.5	--	--	--
APR									
10...	1200	273	38	--	11.0	4.5	--	--	--
27...	1015	574	47	--	7.5	3.5	--	--	--
JUN									
06...	1415	2320	27	--	25.5	7.5	--	--	--
JUL									
06...	1530	986	38	7.6	25.0	11.0	18	1	5.6
19...	0830	501	52	--	11.0	9.0	--	--	--
SEP									
14...	1055	151	70	7.2	7.0	6.5	31	0	10

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT									
28...	--	--	--	--	--	--	--	--	--
JAN									
26...	--	--	--	--	--	--	--	--	--
APR									
10...	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--
JUN									
06...	--	--	--	--	--	--	--	--	--
JUL									
06...	.9	2.6	24	.3	.3	20	0	16	2.2
19...	--	--	--	--	--	--	--	--	--
SEP									
14...	1.5	2.8	16	.2	.7	42	0	34	3.1

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT								
28...	--	--	--	--	--	--	--	--
JAN								
26...	--	--	--	--	--	--	--	--
APR								
10...	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--
JUN								
06...	--	--	--	--	--	--	--	--
JUL								
06...	.3	.1	9.9	32	.04	85.2	.02	.01
19...	--	--	--	--	--	--	--	--
SEP								
14...	.4	.1	13	52	.07	21.2	.00	.00

13316500 LITTLE SALMON RIVER AT RIGGINS, ID

LOCATION.--Lat 45°24'47", long 116°19'29", SE¼SW¼ sec.15, T.24 N., R.1 E., Idaho County, Hydrologic Unit 17060210, on right bank 250 ft (76.2 m) upstream from highway bridge, at mile 0.5 (0.8 km), and 0.8 mi (1.3 km) southwest of Riggins.

DRAINAGE AREA.--576 mi² (1,492 km²). Mean altitude, 5,430 ft (1,655 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1951 to February 1955, September 1956 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,760 ft (536 m) from topographic map. Prior to Feb. 25, 1966, at datum 5.00 ft (1.52 m) higher.

REMARKS.--Records fair. Diversions above station for irrigation of about 15,300 acres (6,190 hm²) 1966 determination.

AVERAGE DISCHARGE.--25 years (1952-54, 1957-78), 836 ft³/s (23.7 m³/s), 605,700 acre-ft/yr (747 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,600 ft³/s (357 m³/s) June 17, 1974; maximum gage height, 12.39 ft (3.776 m) June 13, 1953; minimum discharge, 101 ft³/s (2.86 m³/s) Aug. 19, 1977, gage height, 2.04 ft (0.622 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood about June 1, 1948, reached a discharge of 9,200 ft³/s (261 m³/s) by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Peak above base of 2,000 ft³/s (57 m³/s) and maximum (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft³/s)	(m³/s)	(ft)	(m)	Date	Time	(ft³/s)	(m³/s)	(ft)	(m)
Dec. 15	2345	2710	76.7	5.90	1.798	May 22	0145	3480	98.6	6.81	2.076
Apr. 2	0200	2870	81.3	6.02	1.835	June 5	2330	*4570	129	7.63	2.326
Apr. 27	2200	2520	71.4	5.87	1.789	July 4	0300	3240	91.8	6.51	1.984

Minimum discharge, 135 ft³/s (3.82 m³/s) Nov. 21, gage height, 2.36 ft (0.719 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 7, 24, July 7, July 27 to Aug. 26)

2.4	138	4.0	896
2.7	197	5.0	1,730
3.0	294	6.0	2,790
3.5	552	7.0	4,040

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	465	237	294	211	290	327	2670	2190	2090	2140	411	200
2	341	231	355	216	286	298	2750	2220	2420	1950	385	197
3	290	213	589	294	294	302	2430	2260	2850	2160	360	195
4	264	222	583	327	302	319	2080	2130	3180	3200	332	190
5	244	234	465	375	302	350	1910	1920	3650	2820	315	195
6	234	257	416	421	416	432	1890	1750	3880	2260	306	231
7	261	240	370	416	505	465	2060	1700	3810	2130	290	310
8	250	222	327	385	648	493	1860	1680	3760	2040	282	454
9	234	208	294	370	634	743	1660	1800	3650	1900	275	370
10	225	216	323	370	577	988	1560	2270	3260	1830	282	336
11	216	211	341	365	528	941	1590	2380	2670	1600	294	416
12	213	205	416	350	471	866	1530	2120	2590	1440	290	365
13	213	205	505	336	426	771	1450	2010	2800	1320	355	336
14	205	216	1080	327	400	674	1410	2420	2890	1230	405	310
15	200	231	2280	341	390	570	1390	2860	2650	1160	395	306
16	200	244	2140	395	350	540	1550	2610	2400	1070	448	290
17	192	208	1290	510	310	564	1510	2370	2320	988	471	282
18	185	183	957	546	327	701	1350	2290	2460	918	437	290
19	170	166	757	493	332	873	1300	2190	2380	829	390	294
20	164	153	528	454	310	996	1310	2380	2480	764	355	286
21	162	149	493	421	306	1090	1330	2810	2580	701	345	286
22	160	190	534	416	302	1200	1330	3130	2670	667	341	286
23	164	205	522	370	302	1370	1280	2620	2670	628	350	282
24	164	203	499	298	302	1590	1200	2360	2670	608	294	271
25	178	216	505	350	310	1550	1240	2240	2540	570	228	268
26	282	323	459	360	332	1500	1480	1990	2070	528	225	257
27	247	360	411	332	360	1580	2360	1830	2210	505	222	268
28	222	360	350	319	345	1730	2360	1980	2420	487	219	268
29	219	350	400	323	---	1930	2220	2290	2450	471	208	268
30	247	323	400	290	---	2140	2180	2140	2400	443	205	279
31	247	---	350	298	---	2290	---	1950	---	421	203	---
TOTAL	7058	6981	19233	11279	10657	30183	52240	68890	82870	39778	9918	8586
MEAN	228	233	620	364	381	974	1741	2222	2762	1283	320	286
MAX	465	360	2280	546	648	2290	2750	3130	3880	3200	471	454
MIN	160	149	294	211	286	298	1200	1680	2070	421	203	190
AC-FT	14000	13850	38150	22370	21140	59870	103600	136600	164400	78900	19670	17030

CAL YR 1977 TOTAL 110714 MEAN 303 MAX 2280 MIN 104 AC-FT 219600
WTR YR 1978 TOTAL 347673 MEAN 953 MAX 3880 MIN 149 AC-FT 689600

13316500 LITTLE SALMON RIVER AT RIGGINS, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971-74, 1976 to current year.
REMARKS.--Miscellaneous chemical data published for water year 1975.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
OCT									
06...	0725	238	130	--	12.0	9.0	--	--	--
26...	1300	295	106	--	13.0	9.5	--	--	--
NOV									
16...	1500	244	113	--	10.5	6.5	--	--	--
DEC									
28...	1100	307	110	--	.5	1.0	--	--	--
JAN									
23...	1540	354	68	--	7.0	3.0	--	--	--
FEB									
14...	1505	402	83	--	4.5	4.5	--	--	--
MAR									
28...	1610	1740	74	--	23.0	10.5	--	--	--
APR									
24...	1700	1150	74	--	18.0	9.5	--	--	--
MAY									
25...	1030	2150	64	7.2	17.0	7.5	32	5	9.9
JUN									
22...	1510	2230	48	--	32.5	11.0	--	--	--
JUL									
27...	1320	535	97	--	33.0	16.5	--	--	--
AUG									
23...	1435	360	118	--	22.5	14.0	--	--	--
SEP									
27...	1315	269	131	7.8	23.0	13.0	60	5	19

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)
OCT									
06...	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--
NOV									
16...	--	--	--	--	--	--	--	--	--
DEC									
28...	--	--	--	--	--	--	--	--	--
JAN									
23...	--	--	--	--	--	--	--	--	--
FEB									
14...	--	--	--	--	--	--	--	--	--
MAR									
28...	--	--	--	--	--	--	--	--	--
APR									
24...	--	--	--	--	--	--	--	--	--
MAY									
25...	1.8	2.6	15	.2	.8	33	0	27	6.0
JUN									
22...	--	--	--	--	--	--	--	--	--
JUL									
27...	--	--	--	--	--	--	--	--	--
AUG									
23...	--	--	--	--	--	--	--	--	--
SEP									
27...	3.1	4.5	14	.3	1.2	67	0	55	13

13316500 LITTLE SALMON RIVER AT RIGGINS, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT								
06...	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--
NOV								
16...	--	--	--	--	--	--	--	--
DEC								
28...	--	--	--	--	--	--	--	--
JAN								
23...	--	--	--	--	--	--	--	--
FEB								
14...	--	--	--	--	--	--	--	--
MAR								
28...	--	--	--	--	--	--	--	--
APR								
24...	--	--	--	--	--	--	--	--
MAY								
25...	.6	.0	14	52	.07	302	--	.00
JUN								
22...	--	--	--	--	--	--	--	--
JUL								
27...	--	--	--	--	--	--	--	--
AUG								
23...	--	--	--	--	--	--	--	--
SEP								
27...	.9	.1	15	90	.12	65.4	.08	.03

13317000 SALMON RIVER AT WHITE BIRD, ID

LOCATION.--Lat 45°45'01", long 116°19'23", in NE¼NW¼SW¼ sec.22, T.28 N., R.1 E., Idaho County, Hydrologic Unit 17060209, on left bank 0.1 mi (0.2 km) upstream from White Bird Creek, 0.6 mi (1.0 km) downstream from Canfield-Joseph highway bridge, mi (1.6 km) southwest of White Bird, and at mile 53.7 (86.4 km). Records include flow of White Bird Creek.

DRAINAGE AREA.--13,550 mi² (35,090 km²), approximately, includes that of White Bird Creek. Mean altitude, 6,720 ft (2,048 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1910 to September 1917, October 1919 to current year.

REVISED RECORDS.--WSP 753: 1932. WSP 1043: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,412.65 ft (430.575 m) National Geodetic Vertical Datum of 1929. Aug. 18, 1910, to Sept. 30, 1917, and Oct. 1, 1919, to Sept. 13, 1920, nonrecording gages at site 600 ft (182.88 m) downstream at different datum. Sept. 14, 1920, to Jan. 2, 1931, nonrecording gage on highway bridge 200 ft (60.96 m) upstream at datum 10 ft (3.048 m) higher.

REMARKS.--Records good. Diversions above station for irrigation of about 165,000 acres (66,800 hm²) of which about 1,200 acres (490 hm²) are by withdrawals from ground water (1966 determination).

AVERAGE DISCHARGE.--66 years, 11,300 ft³/s (320 m³/s), 11.32 in/yr (288 mm/yr), 8,187,000 acre-ft/yr (10,100 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 130,000 ft³/s (3,680 m³/s) June 17, 1974, gage height, 35.81 ft (10.915 m); minimum, 1,580 ft³/s (44.7 m³/s) Dec. 11, 1932, gage height, 10.23 ft (3.181 m), from rating curve extended below 2,200 ft³/s (623 mm/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 69,400 ft³/s (1,970 m³/s) June 10, gage height, 27.91 ft (8.507 m); minimum, 2,480 ft³/s (70.2 m³/s) Nov. 22, gage height, 11.60 ft (3.536 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 28 to June 6)

11.60	2,480	17.00	14,700
12.00	3,040	20.00	26,000
13.00	4,650	24.00	45,000
15.00	9,010	28.00	70,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6820	5020	5670	4630	4240	5610	22800	22600	31100	36900	10100	5510
2	6350	4970	6120	3870	4290	5310	24700	23600	31700	35200	9540	5490
3	5940	4930	8080	3360	4440	5040	22400	24200	34600	35200	9140	5360
4	5530	4890	8080	3710	4530	4870	19400	24400	39300	38900	8760	5210
5	5270	4910	7280	4580	4510	5000	17200	23500	46400	37400	8400	5120
6	5100	4990	6580	5000	4560	5320	15900	21700	54500	33700	8130	5150
7	5140	5000	6140	5460	4740	5340	15100	20100	61600	31800	7930	5570
8	5190	4850	5850	5340	4950	5480	14200	18900	66300	31100	7670	7020
9	5150	4580	5550	5250	5140	5850	13500	18500	68400	31300	7390	7710
10	5120	4340	5230	5190	5120	6350	13100	20400	68600	29900	7160	7300
11	5000	4380	5080	5140	5000	6660	13400	25300	64300	27700	6960	7210
12	4850	4530	5400	5120	4670	6730	14100	26300	56200	25700	6750	7390
13	4780	4630	5590	5040	4690	6560	14300	25300	50300	24000	6840	7810
14	4780	4650	6410	4930	4430	6350	14200	26600	49300	22500	7530	7570
15	4760	4670	9300	4930	4500	6060	13900	32600	49500	21200	8250	7210
16	4670	4780	11900	4930	4630	5790	14200	38100	47900	20200	8280	6870
17	4600	4690	10600	5080	4510	5630	14300	36700	44700	19600	8550	6580
18	4500	4500	8680	5120	4390	5850	13800	33200	43400	18700	8530	6450
19	4410	4090	7620	5120	4330	6540	13300	31100	42500	17600	7980	6520
20	4330	3560	6820	5060	4460	7640	13300	30500	43400	16400	7460	6660
21	4240	2790	5870	4970	4550	8600	13600	31500	42300	15500	7120	6800
22	4210	2580	5120	4970	4620	9490	13400	36000	42000	14700	6890	6780
23	4150	3270	5190	4850	4670	10500	13000	38700	42800	13900	6910	6800
24	4120	4140	5670	4620	4780	11600	12500	40500	43200	13200	6800	6750
25	4210	4910	5850	4340	5060	11900	12400	38100	43500	12600	6520	6620
26	5040	5420	6160	4270	5460	11500	13400	34900	41000	11900	6250	6430
27	5590	6310	5730	4620	5810	11800	17700	31500	37800	11400	6040	6250
28	5290	6750	5170	4620	5810	13200	20500	29900	36800	11000	5900	6060
29	4990	6310	4560	4550	---	15200	21500	31400	36800	10800	5750	5920
30	4930	5980	4340	4430	---	17700	21800	32300	37300	11000	5630	5790
31	4990	---	4820	4340	---	20000	---	31900	---	10500	5550	---
TOTAL	154050	141420	200460	147440	133090	259470	476900	900300	1347500	691500	230710	193910
MEAN	4969	4714	6466	4756	4753	8370	15900	29040	46580	22310	7442	6464
MAX	6820	6750	11900	5460	5610	20000	24700	40500	68600	38900	10100	7810
MIN	4120	2580	4340	3360	4240	4870	12400	18500	31100	10500	5550	5120
CFSM	.37	.35	.48	.35	.35	.62	1.17	2.14	3.44	1.65	.55	.48
IN.	.42	.39	.55	.40	.37	.71	1.31	2.47	3.84	1.90	.63	.53
AC-FT	305600	280500	397600	292400	264000	514700	945900	1786000	2772000	1372000	457600	384600

CAL YR 1977 TOTAL 2158370 MEAN 5913 MAX 20600 MIN 2580 CFSM .44 IN 5.93 AC-FT 4281000

13317000 SALMON RIVER AT WHITE BIRD, ID--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959, 1966 to current year.
PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1977 to September 1978.
WATER TEMPERATURES: October 1966 to current year.
REMARKS.--Temperature and specific conductance observations made at approximately 0800 and 1700 on alternate days.
EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 28°C on July 31 and Aug. 2, 1977; minimum, 0.0°C on many days during winter periods.
EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 233 micromhos/cm Nov. 25; minimum, 54 micromhos/cm June 6.
WATER TEMPERATURES: Maximum daily, 25°C Aug. 5, 9; minimum daily, 0.0°C Jan. 2.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (JTU)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)
OCT											
27...	1100	5700	170	7.9	7.0	8.5	3	--	10.6	95	22
NOV											
16...	0900	4710	188	8.4	10.0	5.5	2	--	12.5	104	--
DEC											
28...	1330	5210	100	8.0	3.5	1.0	3	--	14.1	104	K4
JAN											
24...	1200	4540	151	7.3	2.0	2.0	4	--	13.2	101	K10
FEB											
15...	1000	4330	159	7.5	3.0	3.0	2	--	12.9	101	K6
MAR											
29...	1030	15100	*106	7.7	20.0	9.0	10	--	10.6	96	>150
APR											
25...	0830	12000	98	7.7	16.5	10.0	2	--	10.8	101	K20
MAY											
24...	1215	39400	61	7.8	14.5	8.0	--	7.3	11.1	98	K40
JUN											
22...	0915	41900	62	7.5	21.0	12.0	--	4.1	10.2	99	K32
JUL											
28...	1030	10700	97	7.3	17.0	19.6	--	1.0	8.4	95	K4
AUG											
23...	0945	6920	140	7.5	16.0	16.0	--	1.0	8.6	90	K7
SEP											
28...	1145	6120	158	7.9	18.0	14.0	--	.60	8.9	91	K31

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)
OCT											
27...	45	71	0	20	5.2	8.5	20	.4	1.4	90	0
NOV											
16...	--	73	0	20	5.5	8.1	19	.4	1.2	88	7
DEC											
28...	81	72	2	21	4.8	7.2	18	.4	1.3	85	0
JAN											
24...	100	67	7	19	4.8	7.4	19	.4	1.2	73	0
FEB											
15...	97	71	2	21	4.6	7.5	18	.4	1.3	85	0
MAR											
29...	K650	55	5	17	3.0	4.7	15	.3	1.1	61	0
APR											
25...	<1	42	0	12	3.0	4.3	18	.3	.9	54	0
MAY											
24...	K48	34	0	11	1.5	3.0	16	.2	.7	44	0
JUN											
22...	56	26	0	7.9	1.5	2.9	19	.2	.6	32	0
JUL											
28...	70	47	3	14	3.0	4.9	18	.3	1.2	54	0
AUG											
23...	K10	57	0	17	3.6	7.7	22	.4	1.3	81	0
SEP											
28...	K23	73	0	22	4.3	7.7	18	.4	1.3	110	0

* Not a field determination.
K Results based on count outside ideal colony count range.

13317000 SALMON RIVER AT WHITE BIRD, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)
OCT 27...	74	11	2.7	.4	14	104	108	.14	1600	.00	--
NOV 16...	84	11	2.6	.4	15	96	114	.13	1220	.05	.01
DEC 28...	70	15	2.6	.8	16	96	111	.13	1350	.22	.03
JAN 24...	60	12	2.9	.4	16	102	100	.14	1250	.10	.02
FEB 15...	70	11	2.4	.4	16	98	106	.13	1150	.08	.01
MAR 29...	50	6.6	1.6	.2	15	65	79	.09	2650	.07	.05
APR 25...	44	7.4	1.2	.2	14	69	70	.09	2240	.02	.01
MAY 24...	36	6.5	.8	.1	12	49	57	.07	5210	.03	.00
JUN 22...	26	3.8	.6	.1	12	42	45	.06	4750	.05	.00
JUL 28...	44	7.2	1.4	.2	13	69	72	.09	1990	.04	.03
AUG 23...	66	9.6	1.6	.3	13	82	94	.11	1530	.01	.02
SEP 28...	90	14	2.4	.4	14	107	120	.15	1770	.01	.01

DATE	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)
OCT 27...	--	.25	--	--	.25	1.1	.02	--	--	--	--
NOV 16...	--	--	--	.28	--	--	.01	.01	1.4	--	--
DEC 28...	--	--	--	.24	--	--	.02	.01	--	2.3	.5
JAN 24...	.23	.25	.14	.11	.35	1.6	.02	.03	1.7	--	--
FEB 15...	.17	.18	.16	.02	.26	1.2	.02	.01	1.8	--	--
MAR 29...	.70	.75	.75	.00	.82	3.6	.02	.02	--	3.9	.6
APR 25...	.35	.36	.07	.29	.38	1.7	.01	.01	2.3	--	--
MAY 24...	--	--	--	.35	--	--	.04	.00	4.0	--	--
JUN 22...	.21	.21	.01	.20	.26	1.2	.03	.01	--	2.1	.3
JUL 28...	.23	.26	.08	.18	.30	1.3	.01	.01	14	--	--
AUG 23...	.19	.21	.00	.24	.22	.97	.04	.02	--	--	--
SEP 28...	.18	.19	.00	.22	.20	.89	.03	.01	--	2.0	.5

13317000 SALMON RIVER AT WHITE BIRD, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)
DEC										
28...	2	0	2	0	0	0	5	2	3	0
MAR										
29...	2	0	2	100	100	0	1	0	3	10
JUN										
22...	1	0	1	200	0	200	2	2	0	10
SEP										
28...	2	--	2	0	0	0	4	2	2	0

DATE	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)
DEC										
28...	0	10	0	0	0	13	12	1	170	--
MAR										
29...	10	0	3	0	4	4	1	3	350	--
JUN										
22...	10	0	0	0	0	15	13	2	1300	--
SEP										
28...	0	0	0	0	1	9	7	2	240	220

DATE	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS, HG)	MERCURY DIS-SOLVED (UG/L AS HG)
DEC										
28...	30	54	37	17	10	10	0	.2	.2	.0
MAR										
29...	60	5	0	12	30	30	0	.0	.0	.0
JUN										
22...	20	20	14	6	5	5	0	.1	.1	.0
SEP										
28...	20	23	18	5	0	0	10	.2	.2	.0

DATE	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, SUS-PENDED RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
DEC									
28...	0	0	0	1	1	0	10	10	0
MAR									
29...	0	0	0	0	0	0	10	0	10
JUN									
22...	0	0	0	0	0	0	10	5	5
SEP									
28...	0	0	0	0	0	0	30	20	10

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13317000 SALMON RIVER AT WHITE BIRD, IDAHO--Continued

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ATRAZINE, TOTAL (UG/L)	ATRAZINE, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL (UG/L)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 16...	0900	4670	ND	ND	ND	ND	ND	ND	ND	ND
FEB 15...	1000	4330	ND	--	--	--	ND	--	ND	--
MAY 24...	1220	--	ND	ND	ND	--	ND	ND	ND	ND
AUG 23...	0945	6920	ND	--	--	--	ND	--	ND	--

ND Not detected.

DATE	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL (UG/L)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN TOTAL (UG/L)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 15...	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 24...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 23...	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	ETHION, TOTAL (UG/L)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL (UG/L)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 15...	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 24...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 23...	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	METHOXYCHLOR, TOTAL (UG/L)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOTAL (UG/L)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOTAL (UG/L)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	PARATHION, TOTAL (UG/L)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	SIMAZINE TOTAL COULSON COND. (UG/L)	SIMAZINE IN BOTTOM MATERIAL (UG/KG DRY SOLIDS)
NOV 16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 15...	ND	--	ND	--	ND	--	ND	--	--	--
MAY 24...	ND	ND	ND	ND	ND	ND	ND	ND	ND	--
AUG 23...	ND	--	ND	--	ND	--	ND	--	--	--

DATE	TOXAPHENE, TOTAL (UG/L)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOTTOM MATERIAL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOTTOM MATERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 15...	ND	--	ND	--	--	--	--	--	--	--
MAY 24...	ND	ND	ND	ND	--	--	--	--	--	--
AUG 23...	ND	--	ND	--	--	--	--	--	--	--

13317000 SALMON RIVER AT WHITE BIRD, IDAHO--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1977 TO JULY 1978

DATE	OCT 27,77	NOV 16,77	MAR 29,78	JUN 22,78	JUL 28,78
TIME	1100	0900	1030	0915	1030
TOTAL CELLS/ML	4400	240	2300	430	620
DIVERSITY: DIVISION	1.1	0.2	0.9	1.0	0.6
.CLASS	1.1	0.2	0.9	1.0	0.6
..ORDER	1.4	0.3	1.0	1.2	1.3
...FAMILY	2.3	2.6	3.0	2.4	2.9
....GENUS	2.5	3.0	3.5	2.7	3.3

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...OOCYSTACEAE										
....ANKISTRODESMUS	76	2	5	2	--	-	--	-	--	-
...SCENEDESMACEAE										
....SCENEDESMUS	57	1	*	0	--	-	--	-	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	--	-	14	1	--	-	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	*	0	5	2	29	1	14	3	160#	27
....MELOSIRA	*	0	--	-	--	-	--	-	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	110	3	*	0	29	1	29	7	27	4
....COCCONEIS	210	5	49#	20	220	9	29	7	55	9
....RHOICOSPHENIA	57	1	5	2	57	2	14	3	41	7
...CYMBELLACEAE										
....CYMBELLA	170	4	5	2	140	6	14	3	41	7
....EPITHEMIA	95	2	38#	16	110	5	--	-	--	-
...DIATOMACEAE										
....DIATOMA	110	3	33	14	29	1	14	3	55	9
...EUNOTIACEAE										
....EUNOTIA	38	1	--	-	--	-	--	-	--	-
...FRAGILARIACEAE										
....FRAGILARIA	360	8	--	-	--	-	43	10	14	2
....HANNAEA	--	-	--	-	29	1	--	-	--	-
....SYNEDRA	38	1	11	5	230	10	--	-	27	4
...GOMPHONEMATACEAE										
....GOMPHONEMA	76	2	11	5	240	11	14	3	27	4
...NAVICULACEAE										
....CALONEIS	--	-	*	0	--	-	--	-	--	-
....FRUSTULIA	--	-	--	-	14	1	--	-	--	-
....NAVICULA	170	4	49#	20	220	9	43	10	14	2
....NEIDIUM	--	-	--	-	--	-	--	-	41	7
...NITZSCHIACEAE										
....NITZSCHIA	*	0	27	11	190	8	14	3	27	4
...SURIRELLACEAE										
....SURIRELLA	--	-	--	-	29	1	--	-	--	-
...TABELLARIACEAE										
....TABELLARIA	--	-	--	-	43	2	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....ANACYSTIS	2600#	59	--	-	--	-	--	-	--	-
..HORMOGONALES										
...NOSTOCACEAE										
....ANABAENA	--	-	--	-	--	-	--	-	82	13
...OSCILLATORIACEAE										
....LYNGBYA	--	-	--	-	140	6	--	-	--	-
....OSCILLATORIA	150	3	--	-	540#	24	200#	47	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	LENGTH OF EXPO- SURE (DAYS)	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	PERI- PHYTON BIOMASS ASH WEIGHT G/SQ M	CHLOR-A PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2)
APR					
25...	27	1.18	.394	.420	.250
JUN					
22...	29	1.73	1.57	.060	.000

13317000 SALMON RIVER AT WHITE BIRD, IDAHO--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
OCT								
27...	1100	5	77	90	96	100	--	--
NOV								
16...	0900	2	25	87	100	--	--	--
DEC								
28...	1330	6	84	94	100	--	--	--
JAN								
24...	1200	9	110	76	79	89	96	100
FEB								
15...	1000	3	35	93	100	--	--	--
MAR								
29...	1030	37	1510	78	87	96	100	--
APR								
25...	0830	6	194	97	97	99	100	--
MAY								
24...	1215	99	10500	45	60	81	96	100
JUN								
22...	0915	54	6110	49	60	82	95	100
JUL								
28...	1030	3	87	98	100	--	--	--
AUG								
23...	0945	2	37	98	100	--	--	--
SEP								
28...	1145	6	99	96	100	--	--	--

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	169	---	158	---	---	178	182	---	166	---
2	---	---	---	170	---	157	172	---	---	181	---	198
3	---	---	170	---	160	---	---	163	184	---	191	---
4	166	---	---	173	---	152	172	---	---	172	---	173
5	---	176	173	---	147	---	---	170	168	---	169	---
6	180	---	---	173	---	145	160	---	---	177	---	195
7	---	176	171	---	153	---	---	173	175	---	183	---
8	179	---	---	178	---	156	161	---	---	158	---	193
9	---	180	172	---	180	---	---	171	174	---	167	---
10	179	---	---	204	---	230	172	---	---	177	---	187
11	---	181	179	---	160	---	---	162	171	---	162	---
12	182	---	---	200	---	164	161	---	---	166	---	164
13	---	183	199	---	170	---	---	158	178	---	165	---
14	183	---	---	184	---	164	184	---	---	185	---	162
15	---	184	185	---	162	---	---	173	174	---	169	---
16	186	---	---	182	---	125	179	---	---	179	---	195
17	---	188	204	---	120	---	---	201	194	---	161	---
18	188	---	---	180	---	154	161	---	---	191	---	192
19	---	193	195	---	144	---	---	178	189	---	165	---
20	190	---	---	195	---	156	190	---	---	172	---	165
21	---	195	190	---	149	---	---	166	202	---	178	---
22	190	---	---	192	---	155	203	---	---	173	---	146
23	---	193	193	---	156	---	---	203	177	---	136	---
24	194	---	---	199	---	163	166	---	---	166	---	131
25	---	190	233	---	203	---	---	165	175	---	128	---
26	186	---	---	209	---	160	193	---	---	166	---	125
27	---	180	187	---	159	---	---	167	175	---	123	---
28	174	---	---	161	---	167	165	---	---	156	---	116
29	---	162	176	---	195	---	---	176	---	---	114	---
30	165	---	---	154	---	214	168	---	---	---	---	103
31	---	165	---	---	169	---	---	181	---	---	101	---
MEAN	182	182	186	184	162	164	174	174	180	173	155	163

13317000 SALMON RIVER AT WHITE BIRD, IDAHO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	90	---	77	70	---	64	---	124	---	153	---
2	86	---	77	---	---	71	---	70	---	128	---	149
3	---	87	---	79	67	---	66	---	---	128	152	---
4	89	---	76	---	---	88	---	65	129	---	---	165
5	---	93	---	77	57	---	66	---	---	129	156	---
6	94	---	78	---	---	54	---	92	130	---	---	156
7	---	98	---	82	53	---	84	---	---	133	155	---
8	99	---	79	---	---	56	---	77	132	---	---	154
9	---	104	---	79	54	---	73	---	---	136	146	---
10	107	---	80	---	---	56	---	84	142	---	---	156
11	---	109	---	71	53	---	77	---	---	137	163	---
12	107	---	71	---	---	63	---	83	138	---	---	160
13	---	107	---	72	61	---	81	---	---	137	151	---
14	106	---	71	---	---	59	---	85	137	---	---	159
15	---	106	66	---	60	---	84	---	136	---	159	---
16	105	---	62	---	---	62	---	94	132	---	---	163
17	---	100	---	64	62	---	88	---	---	137	165	---
18	105	---	66	---	---	64	---	98	133	---	---	175
19	---	104	---	69	66	---	95	---	---	135	166	---
20	104	---	67	---	---	65	---	99	135	---	---	179
21	---	100	---	68	64	---	98	---	---	145	175	---
22	102	---	77	---	---	63	---	102	141	---	---	182
23	---	105	---	64	62	---	107	---	---	144	174	---
24	103	---	64	---	---	62	---	108	---	148	---	182
25	---	112	---	129	63	---	110	---	---	142	177	---
26	106	---	70	---	---	75	---	111	142	---	---	187
27	---	92	---	72	92	---	111	---	---	152	175	---
28	85	---	72	---	---	68	---	114	161	---	---	174
29	---	82	---	70	66	---	---	114	---	147	173	---
30	80	---	68	---	---	67	115	---	150	---	172	---
31	---	---	---	70	---	---	---	115	---	149	---	---
MEAN	99	99	72	76	63	65	88	94	137	139	163	167
YEAR	138	139										

13317000 SALMON RIVER AT WHITE BIRD, IDAHO--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	16.0	10.0	---	5.0	---	---	5.0	6.0	---	7.0	---
2	14.0	---	---	10.0	---	7.0	.0	---	---	6.0	---	9.0
3	---	15.0	8.0	---	5.0	---	---	3.0	6.0	---	7.0	---
4	12.0	---	---	10.0	---	7.0	5.0	---	---	8.0	---	9.0
5	---	13.0	9.0	---	5.0	---	---	7.0	5.0	---	7.0	---
6	11.0	---	---	8.0	---	6.0	5.0	---	---	9.0	---	10.0
7	---	15.0	8.0	---	5.0	---	---	6.0	6.0	---	7.0	---
8	13.0	---	---	6.0	---	6.0	7.0	---	---	7.0	---	10.0
9	---	14.0	6.0	---	5.0	---	---	6.0	7.0	---	10.0	---
10	12.0	---	---	12.0	---	7.0	5.0	---	---	8.0	---	10.0
11	---	15.0	6.0	---	6.0	---	---	5.0	9.0	---	9.0	---
12	12.0	---	---	7.0	---	7.0	5.0	---	---	6.0	---	10.0
13	---	14.0	9.0	---	5.0	---	---	5.0	6.0	---	8.0	---
14	12.0	---	---	7.0	---	4.0	6.0	---	---	7.0	---	10.0
15	---	12.0	6.0	---	3.0	---	---	6.0	7.0	---	7.0	---
16	10.0	---	---	6.0	---	5.0	6.0	---	---	7.0	---	12.0
17	---	12.0	5.0	---	5.0	---	---	8.0	5.0	---	10.0	---
18	11.0	---	---	6.0	---	5.0	6.0	---	---	7.0	---	12.0
19	---	12.0	5.0	---	5.0	---	---	9.0	7.0	---	10.0	---
20	12.0	---	---	5.0	---	6.0	9.0	---	---	7.0	---	12.0
21	---	12.0	2.0	---	5.0	---	---	10.0	9.0	---	10.0	---
22	10.0	---	---	2.0	---	6.0	10.0	---	---	10.0	---	13.0
23	---	14.0	4.0	---	5.0	---	---	7.0	7.0	---	10.0	---
24	10.0	---	---	9.0	---	5.0	5.0	---	---	9.0	---	12.0
25	---	10.0	5.0	---	5.0	---	---	5.0	9.0	---	10.0	---
26	10.0	---	---	5.0	---	5.0	6.0	---	---	7.0	---	12.0
27	---	11.0	5.0	---	5.0	---	---	6.0	9.0	---	11.0	---
28	10.0	---	---	5.0	---	6.0	6.0	---	---	8.0	---	12.0
29	---	12.0	7.0	---	6.0	---	---	6.0	---	---	10.0	---
30	10.0	---	---	7.0	---	9.0	6.0	---	---	---	---	12.0
31	---	10.0	---	---	6.0	---	---	9.0	---	---	9.0	---
MEAN	11.5	13.0	6.5	7.0	5.0	6.0	6.0	6.5	7.0	7.5	9.0	11.0

DAY	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	12.0	---	9.0	12.0	---	17.0	---	---	24.0	17.0	---
2	10.0	---	9.0	---	---	14.0	---	14.0	21.0	---	---	22.0
3	---	10.0	---	10.0	12.0	---	14.0	---	---	24.0	20.0	---
4	8.0	---	9.0	---	---	14.0	---	13.0	22.0	---	---	21.0
5	---	9.0	---	8.0	14.0	---	14.0	---	---	25.0	20.0	---
6	8.0	---	7.0	---	---	13.0	---	18.0	22.0	---	---	24.0
7	---	10.0	---	10.0	11.0	---	17.0	---	---	24.0	20.0	---
8	10.0	---	10.0	---	---	13.0	---	18.0	22.0	---	---	18.0
9	---	12.0	---	11.0	13.0	---	18.0	---	---	25.0	16.0	---
10	11.0	---	11.0	---	---	13.0	---	18.0	22.0	---	---	18.0
11	---	12.0	---	12.0	11.0	---	16.0	---	---	24.0	16.0	---
12	10.0	---	10.0	---	---	12.0	---	18.0	22.0	---	---	14.5
13	---	10.0	---	12.0	11.0	---	17.0	---	---	20.0	14.0	---
14	10.0	---	12.0	---	---	13.0	---	20.0	18.0	---	---	16.0
15	---	11.0	---	12.0	13.0	---	19.0	---	---	20.0	14.0	---
16	10.0	---	10.0	---	---	14.0	---	20.0	18.0	---	---	16.0
17	---	10.0	---	12.0	14.0	---	18.0	---	---	16.0	14.0	---
18	10.0	---	12.0	---	---	14.0	---	18.0	16.0	---	---	18.0
19	---	10.0	---	12.0	13.0	---	18.0	---	---	18.0	14.0	---
20	10.0	---	10.0	---	---	15.0	---	20.0	16.0	---	---	13.0
21	---	10.0	---	13.0	14.0	---	20.0	---	---	19.0	11.0	---
22	10.0	---	10.0	---	---	16.0	---	22.0	18.0	---	---	16.0
23	---	12.0	---	10.0	14.0	---	20.0	---	---	20.0	14.0	---
24	10.0	---	10.0	---	---	15.0	---	20.0	17.0	---	---	16.0
25	---	13.0	---	12.0	15.0	---	20.0	---	---	23.0	12.0	---
26	11.0	---	10.0	---	---	15.0	---	23.0	18.0	---	---	20.0
27	---	12.0	---	13.0	14.0	---	21.0	---	---	22.0	16.0	---
28	10.0	---	12.0	---	---	16.0	---	23.0	18.0	---	---	18.0
29	---	12.0	---	14.0	17.0	---	22.0	---	---	22.0	15.0	---
30	12.0	---	11.0	---	---	17.0	---	24.0	19.0	---	---	17.0
31	---	---	---	13.0	---	---	21.0	---	---	19.0	---	---
MEAN	10.0	11.0	10.0	11.5	13.0	14.5	18.5	19.5	19.5	21.5	15.5	18.0
YEAR	11.0	12.5										

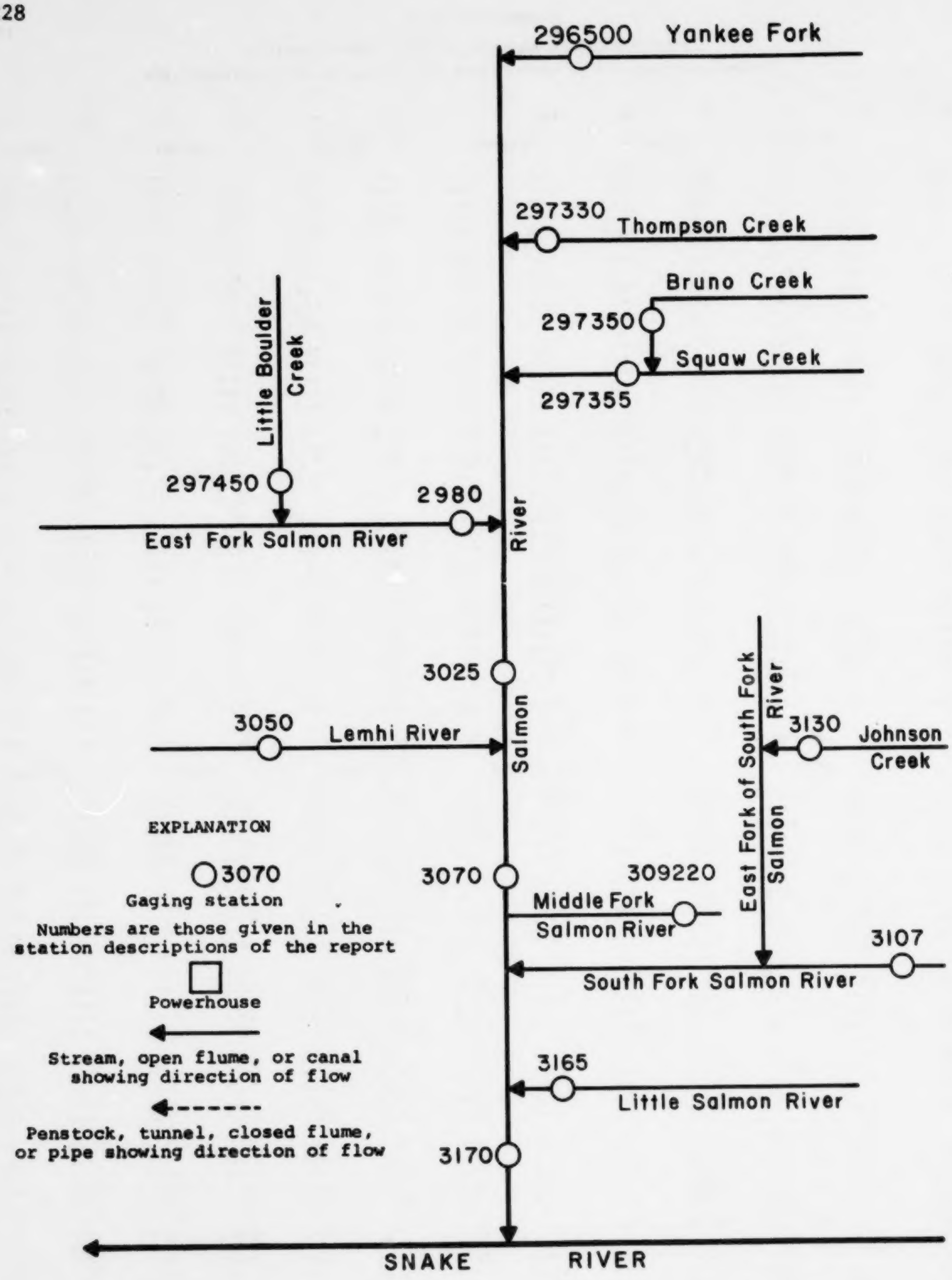
296500
Yankee Fork
297330
Thompson Creek
Bruno Creek
297350
Squaw Creek
297355
Little Boulder Creek
297450
2980
East Fork Salmon River
Salmon River
3025
3050
Lemhi River
East Fork of South Fork Salmon River
3130
Johnson Creek
EXPLANATION
3070
Gaging station
Numbers are those given in the station descriptions of the report
Powerhouse
Stream, open flume, or canal showing direction of flow
Penstock, tunnel, closed flume, or pipe showing direction of flow
3070
309220
Middle Fork Salmon River
3107
South Fork Salmon River
3165
Little Salmon River
3170
SNAKE RIVER

FIGURE 15.--Gaging stations in Salmon River basin.

13334300 SNAKE RIVER NEAR ANATONE, WA

LOCATION.--Lat 46°05'50", long 116°58'36", in SE¼SE¼NE¼ sec.12, T.7 N., R.46 E., Asotin County, Hydrologic Unit 17060103, on left bank 1.2 mi (1.9 km) downstream from Grande Ronde River, 7.8 mi (12.6 km) east of Anatone, 22 mi (35.4 km) south of Clarkston, and at mile 167.2 (269.0 km).

DRAINAGE AREA.--92,960 mi^2 (241,000 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1958 to current year.

REVISED RECORDS.--WDR ID-76-1: 1974 and 1975.

GAGE.--Water-stage recorder. Datum of gage is 806.78 ft (245.907 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Diversions above station for irrigation of about 4,090,000 acres (1,660 hm^2) of which about 750,000 acres (304 hm^2) are by withdrawal from ground water. Flow regulated by many reservoirs above station with a total usable capacity of more than 10,000,000 acre-feet (12,300 hm^3), the most effective of which is Brownlee Reservoir 106.3 mi (171.0 km) upstream (see sta 13289700). Diurnal fluctuations caused by Hells Canyon powerplant.

AVERAGE DISCHARGE.--20 years, 36,310 ft^3/s (1,028 m^3/s), 26,310,000 acre-ft/yr (32,400 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 195,000 ft^3/s (5,520 m^3/s), revised, June 18, 1974, gage height, 24.45 ft (7.452 m); minimum, 6,010 ft^3/s (170 m^3/s) Sept. 2, 1958, gage height, 1.29 ft (0.393 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 99,300 ft^3/s (2,810 m^3/s) June 9, gage height, 15.14 ft (4.615 m); minimum, 14,100 ft^3/s (399 m^3/s) Oct. 22, gage height, 3.73 ft (1.137 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

3.0	11,000	11.0	62,000
5.0	20,000	16.0	107,000
8.0	38,000		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17500	18100	20100	29500	23800	32800	66400	76600	54800	61600	25100	19300
2	17000	17400	26100	26900	23700	30600	72900	76700	53900	57900	19800	18000
3	16800	19400	38200	26500	22700	29500	68300	80500	54100	56300	20600	15400
4	17600	16400	29800	26500	23500	28500	64400	80500	57600	58400	21300	16100
5	16100	15000	27400	27600	21500	26800	58600	79300	67500	60000	19800	18600
6	17000	15100	27700	27300	23000	26800	53400	76900	75400	56300	22600	18300
7	18000	14900	26700	26000	26700	30300	51300	74100	83000	55200	18900	20700
8	18100	17100	27300	24700	35800	31500	49900	71000	90100	53700	21600	23300
9	18000	19300	29100	25400	35000	33500	48800	66000	93000	54400	19200	24400
10	17800	18000	27100	28000	35100	37100	48000	67400	91500	57400	17000	22700
11	18800	17200	24500	28300	35600	38100	48200	71400	85100	52700	16600	25300
12	16800	16100	24900	26800	35200	37700	48700	69000	79100	52400	16500	26000
13	16900	14900	28800	30400	31000	37000	48100	67100	77600	47600	16800	25200
14	15700	15800	42600	30300	33300	35000	46000	65800	76200	44400	17300	28000
15	15500	16200	45500	29700	31600	38200	46300	69900	75700	38200	18000	26300
16	15300	16100	50200	30500	32700	36900	46300	76200	74700	34800	18200	25600
17	15300	18500	48700	31300	31000	31900	47200	75200	70900	34200	18500	26300
18	15800	20200	38500	32700	28800	31900	50300	70700	66400	33100	18700	26900
19	16400	19600	34300	34700	27300	31300	49400	66000	66300	32000	18300	25700
20	16300	18700	29400	33900	24600	34700	49200	60500	67500	31100	17800	23200
21	15300	17700	30000	33200	26400	40500	49800	60500	68000	27800	18100	26200
22	15300	18600	25200	29100	25800	44200	49800	64800	66000	26200	20200	24800
23	16400	15700	22900	28300	23500	48100	49300	64800	65300	25200	21100	22900
24	15700	15500	22600	32000	24700	50100	48600	65100	65200	25100	21300	23100
25	16700	16200	25400	29400	25700	50600	47400	64100	63200	25900	20100	23800
26	17500	19900	30700	28400	24800	50200	48800	60200	63300	24100	19400	25900
27	19500	21100	31900	27900	29500	50700	63700	56700	62300	23700	18000	23900
28	21100	20900	29600	22700	31500	52300	84100	53900	61500	24200	18800	22000
29	18500	19300	32300	20400	---	54600	80400	54300	62000	25700	20600	21800
30	19300	19700	30100	22200	---	57700	77800	56300	62800	23100	18700	20200
31	20700	---	30300	22700	---	60200	---	56200	---	21500	19000	---
TOTAL	532700	528600	957900	873300	793800	1219300	1661400	2097700	2100000	1244200	597900	689900
MEAN	17180	17620	30900	28170	28350	39330	55380	67670	70000	40140	19290	23000
MAX	21100	21100	50200	34700	35800	60200	84100	80500	93000	61600	25100	28000
MIN	15300	14900	20100	20400	21500	26800	46000	53900	53900	21500	16500	15400
AC-FT	1057000	1048000	1900000	1732000	1575000	2418000	3295000	4161000	4165000	2468000	1186000	1368000

CAL YR 1977 TOTAL 6760020 MEAN 18520 MAX 50200 MIN 8520 AC-FT 13410000
WTR YR 1978 TOTAL 13296700 MEAN 36430 MAX 93000 MIN 14900 AC-FT 26370000

13334300 SNAKE RIVER NEAR ANATONE, WA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.
PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1959 to current year.
INSTRUMENTATION.--Temperature recorder since October 1959.
REMARKS.--Temperature record may not represent the true mean water temperature.
COOPERATION.--Temperature records furnished by Corps of Engineers.
EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum (1959-68, 1970-78), 25°C Aug. 11, 1960, Aug. 13, 1963, July 18, 1973; minimum, 0.0°C several days during winter months.
EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 23.0°C Aug. 3, 5-10; minimum, 2.0°C Jan. 2.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, CHEMICAL (LOW LEVEL) (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	HARDNESS (MG/L AS CACO3)
OCT												
20...	1030	14800	412	8.0	12.5	14.5	2	9.7	97	13	K13	--
NOV												
17...	0930	18000	342	7.6	5.0	8.5	2	11.2	98	14	K5	140
DEC												
15...	1030	41800	231	8.0	9.0	8.0	60	11.1	96	18	130	--
JAN												
25...	0920	28400	*384	7.9	2.5	3.5	4	12.2	94	15	K5	--
FEB												
15...	0930	31800	357	7.5	5.0	5.0	4	12.2	97	12	K4	--
MAR												
22...	0900	44200	213	7.2	14.5	11.0	7	11.2	104	13	21	--
APR												
05...	1115	57900	--	--	--	--	--	--	--	--	--	--
20...	0945	49200	179	7.2	12.0	12.0	4	6.2	59	10	K7	--
29...	1530	80300	--	--	--	--	--	--	--	--	--	--
MAY												
02...	1600	76700	--	--	--	--	--	--	--	--	--	--
03...	1000	80700	--	--	--	--	--	--	--	--	--	--
16...	1245	76600	--	--	--	--	--	--	--	--	--	--
17...	1345	75000	--	--	--	--	--	--	--	--	--	--
24...	1100	63400	123	7.2	19.0	13.0	5	11.2	109	59	K16	47
JUN												
07...	1030	80800	--	--	--	--	--	--	--	--	--	--
13...	1200	71900	--	--	--	--	--	--	--	--	--	--
14...	1130	71400	147	7.8	--	--	--	--	--	--	--	--
20...	1000	66900	144	7.0	22.0	16.5	4	9.8	103	14	27	--
JUL												
20...	0930	31200	143	7.6	26.0	19.0	1	8.6	94	2	K12	--
AUG												
23...	1430	17500	233	8.1	27.0	22.5	2	9.6	112	8	K3	--
SEP												
21...	0930	28000	337	8.2	13.0	16.0	1	9.6	100	26	K9	120

* Not a field determination.
K Results based on count outside ideal colony count range.

13334300 SNAKE RIVER NEAR ANATONE, WA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
OCT												
20...	--	--	--	--	--	--	--	180	0	148	--	--
NOV												
17...	9	31	15	33	33	1.2	4.1	160	0	131	49	18
DEC												
15...	--	--	--	--	--	--	--	98	0	80	--	--
JAN												
25...	--	--	--	--	--	--	--	150	0	123	--	--
FEB												
15...	--	--	--	--	--	--	--	150	0	123	--	--
MAR												
22...	--	--	--	--	--	--	--	10	0	8	--	--
APR												
05...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	78	0	64	--	--
29...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
02...	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--
24...	0	14	3.0	7.6	25	.5	1.4	68	0	56	11	3.8
JUN												
07...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	71	0	58	--	--
JUL												
20...	--	--	--	--	--	--	--	76	0	62	--	--
AUG												
23...	--	--	--	--	--	--	--	110	0	90	--	--
SEP												
21...	0	28	11	26	32	1.1	3.5	150	0	123	41	11

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT												
20...	22	264	.36	10600	0	.54	.00	.44	.44	.98	4.3	.07
NOV												
17...	23	240	.33	11700	1	.61	.00	.22	.22	.83	3.7	.05
DEC												
15...	26	157	.21	17700	193	.61	.04	.59	.63	1.2	5.5	.31
JAN												
25...	27	236	.32	18100	6	.91	.07	.00	.07	.98	4.3	.08
FEB												
15...	29	229	.31	19700	9	.27	.02	.01	.03	.30	1.3	.08
MAR												
22...	27	136	.19	16200	15	.54	.01	.34	.35	.89	3.9	.09
APR												
05...	--	129	.18	20200	--	--	--	--	--	--	--	--
20...	24	117	.16	15500	12	.32	.04	.26	.30	.62	2.7	.06
29...	--	129	.18	28000	--	--	--	--	--	--	--	--
MAY												
02...	--	114	.16	23600	--	--	--	--	--	--	--	--
03...	--	114	.16	24800	--	--	--	--	--	--	--	--
16...	--	93	.13	19200	--	--	--	--	--	--	--	--
17...	--	97	.13	19600	--	--	--	--	--	--	--	--
24...	15	87	.12	14900	29	.10	.01	.81	.82	.92	4.1	.03
JUN												
07...	--	67	.09	14600	--	--	--	--	--	--	--	--
13...	--	82	.11	15900	--	--	--	--	--	--	--	--
14...	--	75	.10	14500	--	--	--	--	--	--	--	--
20...	13	79	.11	14300	23	.09	.01	.21	.22	.31	1.4	.03
JUL												
20...	12	97	.13	8170	5	.08	.00	.33	.33	.41	1.8	.02
AUG												
23...	15	141	.19	6660	18	.18	.00	.26	.26	.44	1.9	.04
SEP												
21...	18	219	.30	16600	8	.40	.00	.28	.28	.68	3.0	.05

13334300 SNAKE RIVER NEAR ANATONE, WA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	OIL AND GREASE (MG/L)
OCT											
20...	7	<10	10	<10	20	<100	.0	1	8	1.9	0
NOV											
17...	5	22	4	5	70	40	.0	1	20	2.1	--
DEC											
15...	2	1	180	32	6700	14	.2	0	40	8.9	0
JAN											
25...	3	1	20	9	350	31	.1	0	30	2.2	0
FEB											
15...	5	8	0	8	210	200	.1	1	30	9.3	0
MAR											
22...	9	0	10	5	750	1	.0	3	0	3.4	0
APR											
05...	--	--	--	--	--	--	--	--	--	--	--
20...	2	10	0	4	440	100	.0	0	10	17	0
29...	--	--	--	--	--	--	--	--	--	--	--
MAY											
02...	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--
24...	3	1	20	18	810	7	.1	0	20	2.9	0
JUN											
07...	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
20...	2	25	0	14	2100	10	.3	0	20	2.3	0
JUL											
20...	2	20	10	8	200	57	.0	0	10	2.2	0
AUG											
23...	3	3	10	18	280	50	.0	0	20	2.0	0
SEP											
21...	6	5	0	15	160	43	.0	0	20	1.2	0

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM
OCT							
20...	1030	4	160	--	--	--	--
NOV							
17...	0930	5	243	--	--	--	--
DEC							
15...	1030	166	18700	--	--	--	--
JAN							
25...	0920	3	230	--	--	--	--
FEB							
15...	0930	6	515	--	--	--	--
APR							
04...	1325	22	3740	--	--	--	--
05...	1115	20	3130	--	--	--	--
29...	1530	111	24100	16	25	38	56
MAY							
02...	1600	42	8700	33	43	51	63
03...	1000	50	10900	31	37	45	56
16...	1245	66	13700	21	27	33	42
17...	1345	125	25300	19	24	31	40
JUN							
07...	1030	89	19400	10	15	22	32
13...	1200	82	15900	13	22	33	48
14...	1130	58	11200	12	18	28	40
20...	1000	29	5240	--	--	--	--
JUL							
20...	0930	7	590	--	--	--	--
AUG							
23...	1430	5	236	--	--	--	--
SEP							
21...	0830	6	454	--	--	--	--

13334300 SNAKE RIVER NEAR ANATONE, WA--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
OCT							
20...	--	78	93	98	100	--	--
NOV							
17...	--	--	--	--	--	--	--
DEC							
15...	--	--	--	--	--	--	--
JAN							
25...	--	94	100	--	--	--	--
FEB							
15...	--	96	100	--	--	--	--
APR							
04...	--	89	94	98	100	--	--
05...	--	92	96	99	100	--	--
29...	76	92	96	99	100	--	--
MAY							
02...	76	84	92	98	100	--	--
03...	68	77	85	94	98	99	100
16...	54	66	84	96	100	--	--
17...	50	60	78	96	99	100	--
JUN							
07...	45	56	69	89	98	100	--
13...	63	75	86	95	100	--	--
14...	54	66	78	92	98	100	--
20...	--	71	82	95	99	100	--
JUL							
20...	--	89	98	100	--	--	--
AUG							
23...	--	--	--	--	--	--	--
SEP							
21...	--	--	--	--	--	--	--

13334300 SNAKE RIVER NEAR ANATONE, WA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	15.0	14.0	12.5	11.5	5.5	5.0	4.0	3.0	4.0	3.5	6.0	5.0
2	15.0	14.0	12.0	11.0	6.5	5.5	3.5	2.0	4.0	3.5	5.5	4.5
3	15.0	14.5	11.5	11.0	6.5	6.0	3.5	2.5	5.0	4.0	5.0	4.5
4	15.0	14.5	10.5	10.5	6.5	6.0	3.5	3.0	5.0	4.5	5.0	4.5
5	14.0	14.0	10.5	10.0	6.0	5.0	4.0	3.5	5.0	4.5	5.5	5.0
6	14.5	14.0	10.5	10.0	5.5	5.5	4.0	4.0	5.5	4.5	6.5	5.5
7	15.0	14.0	10.5	9.5	6.0	5.5	4.5	4.0	5.5	5.0	6.5	6.0
8	14.5	14.0	9.5	9.0	5.5	5.0	4.5	4.5	5.0	4.5	6.5	6.5
9	14.5	14.0	10.0	9.0	5.5	5.0	4.5	4.5	5.0	5.0	7.5	6.5
10	14.5	13.5	10.5	9.5	6.0	5.5	5.0	4.5	5.0	4.5	7.0	6.0
11	14.5	13.5	10.0	9.5	6.0	5.5	5.0	4.5	5.0	4.5	6.5	5.5
12	14.0	13.5	10.0	9.5	6.5	6.0	5.0	4.5	5.0	4.5	6.5	6.0
13	14.5	13.5	9.5	9.0	6.5	6.0	5.5	4.5	4.5	4.0	6.5	5.5
14	14.5	13.5	9.0	9.0	6.5	5.5	5.0	5.0	5.0	4.5	6.5	5.5
15	14.5	13.5	9.5	9.0	6.5	6.5	5.0	5.0	5.0	4.5	6.5	5.5
16	14.5	14.0	9.0	8.5	6.5	5.0	5.0	5.0	4.5	4.0	7.0	6.0
17	14.5	13.5	8.5	8.0	5.5	5.0	5.0	5.0	4.5	4.0	8.0	6.5
18	14.5	14.0	8.5	7.5	5.0	5.0	5.5	5.0	4.5	4.0	8.5	7.5
19	14.0	14.0	8.0	7.0	5.0	4.5	5.5	5.0	5.0	4.5	8.5	7.5
20	14.5	13.5	7.5	6.5	4.5	3.5	5.5	5.5	6.0	5.0	8.5	7.5
21	13.5	13.5	6.5	6.0	3.5	3.0	5.5	5.5	6.0	5.5	8.5	7.5
22	13.5	13.0	7.0	6.5	3.5	3.0	5.5	5.0	6.0	5.5	9.0	8.0
23	13.5	13.0	6.5	5.0	3.5	3.0	5.0	4.0	6.0	5.5	8.5	8.0
24	13.5	13.5	6.0	5.5	4.0	3.5	4.5	3.5	6.0	5.5	9.0	7.5
25	14.0	13.0	5.5	5.5	4.0	3.5	4.0	3.5	6.5	5.5	9.0	8.0
26	13.5	13.0	6.0	5.5	4.5	4.0	4.0	3.5	6.5	6.0	9.5	8.5
27	13.5	12.5	6.0	5.5	4.5	4.0	4.0	3.5	6.5	6.0	10.5	9.5
28	12.5	12.5	6.5	6.0	5.0	4.0	4.0	3.5	6.0	5.5	11.0	9.5
29	13.0	12.5	6.5	6.5	5.0	4.5	4.0	4.0	---	---	10.5	9.5
30	12.5	12.5	6.5	5.5	5.0	4.5	4.5	4.0	---	---	10.5	10.0
31	12.5	12.0	---	---	4.5	4.0	4.0	3.5	---	---	10.5	9.5
MONTH	15.0	12.0	12.5	5.0	6.5	3.0	5.5	2.0	6.5	3.5	11.0	4.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.0	9.5	11.5	11.0	14.0	12.5	16.5	16.0	22.5	21.0	21.0	20.0
2	9.0	9.0	11.5	11.0	14.0	13.0	16.0	15.5	22.5	21.5	21.5	20.5
3	9.0	8.5	11.5	11.0	15.0	13.5	16.0	15.0	23.0	21.5	22.0	20.5
4	9.0	8.5	11.0	10.0	15.5	14.0	15.0	14.5	22.5	21.5	21.5	20.5
5	8.5	8.0	10.5	10.0	15.0	14.0	15.0	14.0	23.0	22.0	21.0	20.5
6	8.5	8.0	11.0	10.0	14.5	13.5	16.5	14.5	23.0	22.0	20.5	20.0
7	8.5	8.0	11.5	10.5	14.5	13.0	17.0	16.5	23.0	22.0	20.0	19.0
8	9.5	8.0	12.5	11.0	14.0	13.0	17.0	16.0	23.0	21.5	19.0	18.5
9	10.0	8.5	12.0	12.0	13.5	13.0	17.5	16.5	23.0	22.0	19.0	18.5
10	10.5	9.5	12.5	11.5	13.0	12.0	18.0	17.0	23.0	22.0	19.0	18.5
11	11.0	10.0	12.5	11.5	12.5	11.5	17.5	16.5	22.5	22.0	18.5	18.0
12	10.5	9.5	12.0	11.5	12.5	12.0	18.0	16.5	22.0	21.0	18.0	17.0
13	10.5	9.5	12.5	11.5	13.0	12.0	18.5	17.5	21.0	19.5	17.5	17.0
14	10.5	9.5	12.0	12.0	13.5	12.5	19.5	18.5	20.5	19.5	18.5	17.5
15	11.0	10.0	12.5	12.0	13.5	13.0	20.0	19.0	20.0	20.0	18.0	17.5
16	10.5	10.0	11.5	11.0	14.0	13.0	19.5	18.5	20.0	19.0	17.5	17.0
17	10.0	9.5	11.0	10.5	14.5	13.5	19.5	18.0	19.0	18.0	17.0	16.0
18	10.5	9.0	11.5	10.5	14.5	14.0	20.5	19.0	19.0	17.5	16.5	16.0
19	11.0	10.0	13.0	11.5	15.0	14.0	20.0	19.0	19.0	18.5	17.0	16.0
20	10.5	10.0	13.0	12.0	15.5	14.5	20.0	18.5	19.0	18.5	16.5	16.0
21	10.5	9.5	13.5	12.5	15.5	14.5	20.5	19.0	19.5	18.5	16.5	15.5
22	10.5	9.5	13.0	12.0	15.0	14.5	21.0	19.0	19.0	18.5	16.0	15.5
23	11.0	9.5	12.0	10.5	15.5	15.0	21.5	20.0	19.5	18.5	16.5	15.5
24	11.5	10.5	10.5	10.0	15.5	14.5	21.5	20.5	20.5	19.0	17.0	16.0
25	12.0	11.0	10.5	10.0	14.5	14.0	22.0	20.0	19.5	19.0	17.5	16.5
26	12.5	11.5	11.0	10.0	15.0	13.5	22.0	20.5	19.5	19.0	18.0	17.5
27	12.5	10.0	12.0	11.0	15.5	14.5	22.5	21.0	20.0	18.5	18.0	17.5
28	10.5	10.0	13.0	12.0	16.5	15.5	22.0	21.0	20.0	19.0	17.5	17.0
29	11.0	10.0	13.0	12.5	16.5	16.0	22.0	20.5	21.0	19.5	17.5	17.0
30	11.5	10.5	13.0	12.0	17.0	16.0	22.5	21.0	20.0	19.5	17.0	16.5
31	---	---	13.0	12.0	---	---	22.5	21.5	20.5	19.5	---	---
MONTH	12.5	8.0	13.5	10.0	17.0	11.5	22.5	14.0	23.0	17.5	22.0	15.5
YEAR	23.0	2.0										

13334700 ASOTIN CREEK BELOW KEARNEY GULCH, NEAR ASOTIN, WA

LOCATION.--Lat 46°19'35", long 117°09'06", in SW¼SE¼ sec.22, T.10 N., R.45 E., Asotin County, Hydrologic Unit 17060103, on left bank 0.3 mi (0.5 km) downstream from Kearney Gulch, 2.5 mi (4.0 km) upstream from George Creek, 5.0 mi (8.0 km) west of Asotin, and at mile 5.3 (8.5 km).

DRAINAGE AREA.--170 mi² (440 km²).

PERIOD OF RECORD.--October 1959 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,090 ft or 332 m (from topographic map).

REMARKS.--Records good except those for period of no gage-height record, which are fair. Several diversions for irrigation. Prior to Nov. 20, 1959, at a point 3.3 mi (5.3 km) upstream, the city of Clarkston diverted about 30 ft³/s (0.85 m³/s) for municipal use and irrigation. Natural low flows nearly equivalent to those of former station 3.3 mi (5.3 km) upstream.

AVERAGE DISCHARGE.--19 years, 77.2 ft³/s (2.186 m³/s), 55,930 acre-ft/yr (69.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 3,700 ft³/s (105 m³/s) Jan. 15, 1974; maximum gage height, 8.07 ft (2.460 m) Jan. 14, 1974; minimum discharge, 13 ft³/s (0.37 m³/s) Jan. 11, 1963, result of freezeup; minimum gage height, 0.69 ft³/s (0.210 m³/s) Aug. 14, 15, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 220 ft³/s (6.23 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 14	0500	*496	14.0	*2.89	0.881	Apr. 27	0645	322	9.12	2.30	0.701

Minimum discharge, 32 ft³/s (0.91 m³/s) Oct. 3-6, 21-24; minimum gage height, 0.79 (0.241 m) Oct. 3-6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	35	52	69	68	80	190	188	92	64	38	41
2	35	37	76	125	68	78	180	172	92	68	38	41
3	34	37	161	132	68	78	160	160	92	72	37	40
4	34	36	134	78	66	78	153	150	92	82	38	40
5	32	36	107	76	69	78	139	139	92	85	37	40
6	32	36	96	69	74	76	132	125	94	82	35	42
7	33	35	91	66	80	74	156	117	94	76	35	64
8	34	35	85	66	89	78	130	114	94	74	36	58
9	33	35	80	68	92	92	123	119	92	82	36	50
10	34	34	75	68	91	96	119	125	92	90	36	48
11	34	34	75	68	89	98	114	132	94	88	37	45
12	34	33	79	68	85	94	110	123	92	82	40	44
13	33	34	126	66	83	91	108	130	88	74	51	44
14	33	34	431	69	80	89	121	148	84	66	44	44
15	33	36	406	73	78	85	110	160	80	62	45	42
16	33	37	282	74	76	82	115	150	78	65	47	42
17	33	36	206	78	73	80	120	139	74	65	42	42
18	33	35	160	80	73	78	110	128	70	60	41	44
19	33	34	137	80	71	76	105	128	68	58	41	42
20	33	35	117	80	71	74	100	134	72	56	42	40
21	32	42	108	80	69	72	95	143	70	54	44	40
22	32	35	102	78	69	70	95	140	64	52	54	40
23	32	35	96	74	71	90	100	132	68	50	53	40
24	32	36	91	74	74	100	100	121	76	44	45	40
25	33	42	85	73	78	115	105	112	76	42	44	40
26	35	55	81	73	83	120	112	104	70	42	42	38
27	35	54	76	71	81	120	230	102	64	42	42	38
28	36	51	74	69	80	115	253	100	60	40	41	38
29	36	50	74	69	---	115	236	100	60	40	41	38
30	37	51	73	68	---	146	209	94	64	38	42	38
31	36	---	68	68	---	148	---	94	---	38	44	---
TOTAL	1048	1155	3904	2352	2149	2866	4132	4031	2398	1933	1288	1283
MEAN	33.8	38.5	126	75.9	76.8	92.5	138	130	79.9	62.4	41.5	42.8
MAX	39	55	431	132	92	148	253	188	94	90	54	64
MIN	32	33	52	66	66	70	95	94	60	38	35	38
AC-FT	2080	2290	7740	4670	4260	5680	8200	8000	4760	3830	2550	2540

CAL YR 1977 TOTAL 17265 MEAN 47.3 MAX 431 MIN 27 AC-FT 34250
WTR YR 1978 TOTAL 28539 MEAN 78.2 MAX 431 MIN 32 AC-FT 56610

13336500 SELWAY RIVER NEAR LOWELL, ID

LOCATION.--Lat 46°05'12", long 115°30'46", in SE¼NE¼ sec.25, T.32 N., R.7 E., Idaho County, Hydrologic Unit 17060302, Nezperce National Forest, on right bank 0.2 mi (0.3 km) upstream from O'Hara Creek, 7 mi (11.3 km) upstream from Lowell, 7.6 mi (12.2 km) upstream from confluence with Lochsa River, and 105.2 mi (169.3 km) upstream from mouth of Clearwater River.

DRAINAGE AREA.--1,910 mi² (4,950 km²), approximately. Mean altitude, 5,640 ft (1,719 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1911 to September 1912 (gage heights or fragmentary discharge records only), October 1929 to current year. Monthly discharge only for October 1929, published in WSP 1317.

REVISED RECORDS.--WSP 1043: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 1,540 ft (469 m) from river-profile map. Apr. 11 to Sept. 2, 1911, nonrecording gage at site 2 mi (3.2 km) downstream at different datum. Feb. 7 to Sept. 22, 1912, and Oct. 14, 1929, to Nov. 19, 1930, nonrecording gages at nearby sites at different datum.

REMARKS.--Records good. Small diversions from headwaters.

AVERAGE DISCHARGE.--49 years (1929-78), 3,829 ft³/s (108.4 m³/s), 27.22 in/yr (691 mm/yr), 2,774,000 acre-ft/yr (3,420 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48,900 ft³/s (1,380 m³/s) May 29, 1948, gage height, 16.04 ft (4.889 m); minimum, probably less than 100 ft³/s (2.83 m³/s) Jan. 8, 1937, during period of ice effect.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 27,900 ft³/s (790 m³/s) June 7, gage height, 11.46 ft (3.493 m), only peak above base of 18,000 ft³/s (510 m³/s); minimum discharge, 580 ft³/s (16.4 m³/s) Nov. 21, gage height, 2.90 ft (0.884 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Dec. 3-4,15-16, July 30 to Aug. 2, Aug. 17-18, Sept. 13;
stage-discharge relation affected by ice Nov. 22-24, Jan. 3-5)

3.0	585	6.0	5,600
3.5	970	8.0	12,200
4.0	1,530	10.0	20,700
5.0	3,200	12.0	30,600

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1530	1450	2730	1430	1500	2280	14500	13300	11600	11400	1800	926
2	1370	1650	7210	1240	1560	2100	13800	12600	12800	10600	1810	880
3	1250	1660	11300	1400	1670	1930	11600	12600	15400	9480	1610	837
4	1160	1480	7390	1600	1760	2040	10000	11600	18900	10100	1530	812
5	1080	1440	5490	1800	1760	2010	8850	10500	22100	9610	1450	796
6	1030	1490	4550	1920	1920	1960	7980	9530	25000	8560	1370	821
7	1160	1450	4230	1760	2060	1930	7420	9060	25800	8350	1310	935
8	1350	1390	3710	1710	2250	1990	6820	8760	24800	8880	1240	1470
9	1350	1250	3350	1840	2330	2380	6360	8960	24100	7900	1200	1270
10	1420	1290	3170	1790	2260	2650	6220	11100	21000	7390	1140	1040
11	1270	1310	2980	1760	2130	2710	7100	13600	17300	6970	1100	1010
12	1210	1270	3000	1790	1890	2710	6940	12400	15200	6140	1060	1420
13	1220	1270	3230	1740	1690	2580	6520	12000	15300	5520	1120	1790
14	1250	1300	5210	1760	1830	2490	6340	13400	17100	5210	1410	1550
15	1230	1570	6520	1790	1770	2360	6330	16000	16300	5000	1380	1400
16	1190	1690	6550	1770	1650	2230	6900	15700	14100	4800	1540	1300
17	1160	1520	5320	1790	1570	2270	6660	13700	12600	4550	1770	1270
18	1120	1350	4530	1810	1520	2550	6180	12500	13400	4300	1730	1220
19	1080	992	3890	1800	1490	3050	6120	12200	14200	3900	1440	1180
20	1050	666	3290	1810	1520	3490	6680	13100	13400	3550	1280	1130
21	1020	634	2840	1770	1540	3970	6920	14500	13600	3300	1190	1090
22	992	760	3080	1790	1530	4700	6420	17300	13900	3000	1270	1070
23	973	1000	2880	1730	1610	5590	6120	15900	14200	2860	1580	1030
24	944	1300	2650	1630	1790	6460	5730	14400	14400	2730	1300	1010
25	1050	1740	2450	1630	2020	6060	5860	13000	15600	2600	1140	982
26	1740	4070	2300	1690	2230	5790	7380	11800	12500	2420	1060	935
27	1570	3690	2060	1620	2380	6550	10000	11200	11300	2300	1010	904
28	1380	2980	1670	1560	2350	8150	11300	11900	11800	2230	992	888
29	1380	2940	1690	1570	---	9880	11400	13200	12600	2250	944	895
30	1430	3150	2280	1500	---	11800	11100	12400	12300	2070	917	870
31	1500	---	1960	1450	---	13300	---	11500	---	1920	926	---
TOTAL	38459	49752	123710	52250	51580	129980	241550	389710	482600	169890	40619	32731
MEAN	1241	1658	3991	1685	1842	4193	8052	12570	16090	5480	1310	1091
MAX	1740	4070	11300	1920	2380	13300	14500	17300	25800	11400	1810	1790
MIN	944	634	1670	1240	1490	1930	5730	8760	11300	1920	917	796
CFSM	.65	.87	2.09	.88	.96	2.20	4.22	6.58	8.42	2.87	.69	.57
IN.	.75	.97	2.41	1.02	1.00	2.53	4.70	7.59	9.40	3.31	.79	.64
AC-FT	76280	98680	245400	103600	102300	257800	479100	773000	957200	337000	80570	64920

CAL YR 1977 TOTAL 909523 MEAN 2492 MAX 14500 MIN 430 CFSM 1.31 IN 17.71 AC-FT 1804000
WTR YR 1978 TOTAL 1802831 MEAN 4939 MAX 25800 MIN 634 CFSM 2.59 IN 35.11 AC-FT 3576000

13336500 SELWAY RIVER NEAR LOWELL, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974-76, November 1977 to September 1978.
REMARKS.--Miscellaneous chemical data published for water years 1973 and 1977.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
NOV 02...	1130	1640	29	7.5	10.5	7.0	11	0	3.5
DEC 15...	1305	6640	36	--	7.0	3.5	--	--	--
MAR 14...	0840	2610	43	--	5.0	3.5	--	--	--
JUN 15...	0905	17500	111	--	15.5	9.5	--	--	--
AUG 02...	1540	1710	26	8.0	30.5	22.0	10	0	3.4
SEP 26...	0845	927	32	--	14.5	12.5	--	--	--

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)
NOV 02...	.5	1.9	27	.3	.5	15	0	12	1.7
DEC 15...	--	--	--	--	--	--	--	--	--
MAR 14...	--	--	--	--	--	--	--	--	--
JUN 15...	--	--	--	--	--	--	--	--	--
AUG 02...	.3	1.8	27	.3	.5	12	0	10	1.1
SEP 26...	--	--	--	--	--	--	--	--	--

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
NOV 02...	.4	.1	10	26	.04	115	.00	.02
DEC 15...	--	--	--	--	--	--	--	--
MAR 14...	--	--	--	--	--	--	--	--
JUN 15...	--	--	--	--	--	--	--	--
AUG 02...	1.0	.1	10	24	.03	111	.01	.00
SEP 26...	--	--	--	--	--	--	--	--

13337000 LOCHSA RIVER NEAR LOWELL, ID

LOCATION.--Lat 46°09'02", long 115°35'11", in SW¼SE¼ sec.33, T.33 N., R.7 E., Idaho County, Hydrologic Unit 17060303, Clearwater National Forest, on right bank 0.7 mi (1.1 km) upstream from Lowell, 0.9 mi (1.4 km) upstream from confluence with Selway River, 1.2 mi (1.9 km) downstream from Pete King Creek, and 19 mi (30.6 km) east of Kooskia.

DRAINAGE AREA.--1,180 mi^2 (3,060 km^2), approximately. Mean altitude, 5,250 ft (1,600 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1910 to September 1912, October 1929 to current year. Monthly discharge only for some periods, published in WSP 1317.

GAGE.--Water-stage recorder. Datum of gage is 1,452.98 ft (442.868 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 21, 1930, nonrecording gages at site 1 mi (1.6 km) upstream at different datums.

REMARKS.--Records good.

AVERAGE DISCHARGE.--51 years, 2,917 ft^3/s (82.6 m^3/s), 33.57 in/yr (853 mm/yr), 2,113,000 acre-ft/yr (2.61 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35,100 ft^3/s (994 m^3/s) June 8, 1964, gage height, 13.50 ft (4.115 m), from rating curve extended above 17,000 ft^3/s (481 m^3/s); minimum, probably less than 100 ft^3/s (2.8 m^3/s) Jan. 8, 1937, during period of ice effect.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 12,000 ft^3/s (340 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 22	0830	13500	382	8.36	2.548	June 7	0445	*17500	496	9.51	2.899

Minimum discharge, 493 ft^3/s (14.0 m^3/s) Nov. 20, gage height, 2.07 ft (0.631 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 26, 27, 30, Dec. 2-19, Mar. 24 to May 25; stage-discharge relation affected by ice Nov. 21-24, Jan. 3-5)

2.0	486	6.0	7,190
2.5	886	8.0	12,700
3.0	1,420	10.0	19,500
4.0	2,920		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1210	1100	2170	1250	1310	1580	10100	9660	7560	6560	1210	754
2	1020	1280	7260	1180	1370	1440	9640	9440	8370	6160	1150	729
3	902	1310	9280	1300	1420	1260	8040	9390	9860	6140	1080	663
4	818	1120	6420	1450	1430	1430	6940	8560	12000	6560	1030	624
5	762	1070	4780	1600	1430	1610	6250	7560	13800	5950	990	609
6	724	1120	4030	1720	1670	1540	5630	6840	15800	5250	952	640
7	820	1120	3800	1610	1790	1480	5360	6610	16300	4950	915	720
8	1040	1060	3210	1560	1910	1530	4950	6560	15500	5030	878	981
9	982	943	2870	1720	1930	2060	4730	6770	15000	4900	850	990
10	999	943	2810	1610	1830	2200	4750	8680	12700	4480	814	814
11	903	962	2700	1570	1740	2150	5540	10100	10700	4130	780	788
12	835	924	2750	1570	1520	2120	5390	8900	9500	3660	754	878
13	813	933	2990	1560	1330	2030	5010	8690	9500	3350	887	1220
14	824	1000	4590	1580	1420	1970	4930	9800	10100	3130	943	1040
15	820	1320	5340	1610	1440	1860	4840	11400	9610	3010	887	924
16	792	1320	5100	1570	1370	1760	5300	10900	8370	3060	1150	868
17	769	1160	4300	1590	1290	1780	5100	9550	7410	2970	1230	832
18	746	1030	3820	1620	1250	2050	4780	8720	7710	2660	1220	814
19	719	771	3350	1590	1240	2370	4750	8880	8300	2420	1040	788
20	696	579	2850	1580	1290	2530	5210	10000	7630	2240	915	754
21	677	520	2560	1560	1300	2800	5520	11200	7630	2110	850	729
22	657	620	2650	1590	1250	3280	5100	12800	7890	1970	905	712
23	642	760	2500	1540	1300	3900	4880	11100	7940	1860	1170	687
24	627	980	2310	1460	1380	4560	4610	9940	7830	1780	1040	663
25	821	1410	2150	1430	1520	4340	4620	8880	9890	1680	878	640
26	1260	3280	2060	1500	1610	4210	6070	8010	8510	1590	806	624
27	1080	2800	1820	1420	1660	4730	7780	7510	7160	1500	771	601
28	932	2390	1520	1380	1630	5680	8430	8120	6890	1470	737	601
29	932	2400	1820	1370	---	6510	8450	8690	7260	1400	712	624
30	1040	2480	1930	1310	---	7830	8060	7910	7010	1330	679	617
31	1200	---	1710	1250	---	9230	---	7460	---	1280	687	---
TOTAL	27062	38705	107450	46650	41630	93820	180960	278830	293730	104580	28910	22928
MEAN	873	1290	3466	1505	1487	3026	6032	8995	9791	3374	933	764
MAX	1260	3280	9280	1720	1930	9230	10100	12800	16300	6560	1230	1220
MIN	627	520	1520	1180	1240	1260	4610	6560	6890	1280	679	601
CFSM	.74	1.09	2.94	1.28	1.26	2.56	5.11	7.62	8.30	2.86	.79	.65
IN.	.85	1.22	3.39	1.47	1.31	2.96	5.70	8.79	9.26	3.30	.91	.72
AC-FT	53680	76770	213100	92530	82570	186100	358900	553100	582600	207400	57340	45480

CAL YR 1977 TOTAL 668365 MEAN 1831 MAX 9940 MIN 284 CFSM 1.55 IN 21.07 AC-FT 1326000
WTR YR 1978 TOTAL 1265255 MEAN 3466 MAX 16300 MIN 520 CFSM 2.94 IN 39.89 AC-FT 2510000

13337000 LOCHSA RIVER NEAR LOWELL, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974-76, October 1977 to September 1978.
REMARKS.--Miscellaneous chemical data published for water years 1973 and 1977.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
NOV 02...	1345	1310	33	7.5	9.5	5.5	14	1	4.4
DEC 15...	0900	5230	35	--	7.0	3.5	--	--	--
MAR 14...	0915	1980	39	--	6.0	3.5	--	--	--
JUN 14...	1615	9890	118	--	17.0	11.0	--	--	--
AUG 02...	1000	1150	30	8.0	22.5	20.5	13	0	4.2
SEP 26...	1040	616	37	--	14.5	13.0	--	--	--

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)
NOV 02...	.7	2.0	23	.2	.5	16	0	13	2.1
DEC 15...	--	--	--	--	--	--	--	--	--
MAR 14...	--	--	--	--	--	--	--	--	--
JUN 14...	--	--	--	--	--	--	--	--	--
AUG 02...	.5	1.8	23	.2	.5	16	0	13	1.8
SEP 26...	--	--	--	--	--	--	--	--	--

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
NOV 02...	.4	.0	12	30	.04	106	.01	.02
DEC 15...	--	--	--	--	--	--	--	--
MAR 14...	--	--	--	--	--	--	--	--
JUN 14...	--	--	--	--	--	--	--	--
AUG 02...	.4	.0	12	29	.04	90.0	.01	.00
SEP 26...	--	--	--	--	--	--	--	--

13338500 SOUTH FORK CLEARWATER RIVER AT STITES, ID

LOCATION.--Lat 46°05'12", long 115°58'32", in NE¼SE¼NE¼ sec.29, T.32 N., R.4 E., Idaho County, Hydrologic Unit 17060305, on left bank at Stites, 0.4 mi (0.6 km) upstream from county road bridge, 0.4 mi (0.6 km) downstream from Cottonwood Creek, and at mile 4.0 (6.4 km).

DRAINAGE AREA.--1,150 mi² (2,980 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1910 to April 1912, October 1964 to current year. Published as "at Kooskia" 1910-12.

REVISED RECORDS.--WSP 1317: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 1,300 ft (396 m), from topographic map. October 1910 to April 1912, nonrecording gage 3.6 mi (5.8 km) downstream at different datum.

REMARKS.--Records good. No regulation above station.

AVERAGE DISCHARGE.--15 years (1911, 1965-78), 1,127 ft³/s (31.9 m³/s), 13.31 in/yr (338 mm/yr), 816,500 acre-ft/yr (1,010 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 10,700 ft³/s (303 m³/s) May 29, 1912, gage height, 6.00 ft (1.829 m), site and datum then in use; minimum, 72 ft³/s (2.04 m³/s) Nov. 28, 1976, gage height, 2.41 ft (0.735 m); minimum gage height, 2.40 ft (0.732 m) Dec. 18, 1965 (ice affected).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 8, 1964, reached a stage of 10.3 ft (3.14 m), present site and datum, discharge, 17,500 ft³/s (496 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 3,300 ft³/s (93.5 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 2	2315	6660	189	6.93	2.112	May 17	0900	5670	161	6.31	1.923
Apr. 2	0145	5960	169	6.44	1.963	July 4	1230	6420	182	6.83	2.082
Apr. 27	0415	*9190	260	7.79	2.374						

Minimum discharge, 230 ft³/s (6.51 m³/s) Nov. 21, 22, gage height, 2.82 ft (0.860 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Feb. 25 to May 5, May 10-30, June 5-10;
stage-discharge relation affected by ice Nov. 22-24, Jan. 3-4)

2.5	96	4.0	1,250
2.7	169	5.0	2,670
3.0	324	6.0	4,570
3.5	699	7.0	6,800

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	687	468	721	565	666	1780	5710	4820	3010	1620	521	325
2	521	491	3050	431	757	1320	5670	4400	3030	1520	498	313
3	429	518	4810	520	838	1190	4760	4150	3150	1790	477	295
4	379	462	2830	640	747	1250	4130	3790	3260	4520	462	284
5	343	449	2080	899	699	1810	3730	3500	3490	3840	448	278
6	326	499	1750	1310	890	2030	3750	3140	3680	2730	434	295
7	444	486	1650	980	869	1520	4460	2920	3640	2480	414	381
8	551	446	1360	990	828	1470	3680	2700	3540	2400	401	537
9	493	384	1180	1170	807	2390	3340	2690	3520	2160	387	434
10	603	415	1180	1030	787	2100	3140	3580	3600	1970	374	349
11	515	425	1200	950	787	1930	3410	4690	3260	1820	368	470
12	461	407	1230	913	728	2590	3190	4440	2700	1640	355	530
13	450	409	1310	871	603	2030	2980	4190	2590	1500	441	594
14	437	426	2210	838	672	1820	2890	4400	2540	1380	807	484
15	407	472	2530	865	690	1690	2840	4930	2430	1290	569	421
16	386	581	2260	959	646	1550	2940	4950	2220	1300	747	387
17	370	496	1880	1130	594	1540	2740	5320	2040	1310	777	362
18	353	414	1760	1140	637	1690	2520	4540	2030	1160	628	374
19	339	333	1550	945	747	1890	2480	4250	2120	1060	514	387
20	327	285	1150	1180	1190	2050	2770	4050	2000	978	455	381
21	317	259	1050	1010	1080	2220	2790	4110	1990	910	434	368
22	308	290	1240	1120	890	2490	2620	4740	2040	850	427	349
23	299	345	1180	900	838	2820	2600	4360	2100	798	628	337
24	292	920	1090	699	890	3060	2450	4690	2180	753	492	331
25	341	591	1040	733	1420	2870	2510	4380	2300	706	414	313
26	1040	1300	989	818	2210	3010	3100	4010	1900	670	387	301
27	724	1100	841	768	2430	3430	6700	3640	1700	635	368	295
28	547	910	670	749	2120	3850	4420	3850	1770	616	349	289
29	487	816	745	805	---	4380	4190	3770	1740	676	337	289
30	471	787	903	706	---	4970	3950	3410	1720	602	325	284
31	486	---	785	653	---	5270	---	3140	---	553	325	---
TOTAL	14133	16184	48224	27287	27060	74010	106460	125550	77290	46237	14563	11037
MEAN	456	539	1556	880	966	2387	3549	4050	2576	1492	470	368
MAX	1040	1300	4810	1310	2430	5270	6700	5320	3680	4520	807	594
MIN	292	259	670	431	594	1190	2450	2690	1700	553	325	278
CFSM	.40	.47	1.35	.77	.84	2.08	3.09	3.52	2.24	1.30	.41	.32
IN.	.46	.52	1.56	.88	.88	2.39	3.44	4.06	2.50	1.50	.47	.36
AC-FT	28030	32100	95650	54120	53670	146800	211200	249000	153300	91710	28890	21890

CAL YR 1977 TOTAL 273907 MEAN 750 MAX 4810 MIN 121 CFSM .65 IN 8.86 AC-FT 543300
WTR YR 1978 TOTAL 588035 MEAN 1611 MAX 6700 MIN 259 CFSM 1.40 IN 19.02 AC-FT 1166000

13338500 SOUTH FORK CLEARWATER RIVER AT STITES, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973-76, October 1977 to September 1978.
REMARKS.--Miscellaneous chemical data published for water year 1977.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
NOV 02...	0800	464	67	6.7	9.0	6.0	21	0	5.8
DEC 14...	1520	2280	111	--	7.0	4.5	--	--	--
FEB 02...	1150	696	122	--	8.5	3.0	--	--	--
MAR 13...	1505	--	128	--	10.0	6.0	--	--	--
JUN 14...	1055	2520	282	--	23.0	12.5	--	--	--
AUG 03...	1630	473	48	8.3	30.5	24.5	29	6	9.3
SEP 26...	1320	295	69	--	26.5	17.0	--	--	--

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)
NOV 02...	1.6	4.1	28	.4	1.1	33	0	27	4.1
DEC 14...	--	--	--	--	--	--	--	--	--
FEB 02...	--	--	--	--	--	--	--	--	--
MAR 13...	--	--	--	--	--	--	--	--	--
JUN 14...	--	--	--	--	--	--	--	--	--
AUG 03...	1.5	3.1	18	.2	1.1	28	0	23	4.4
SEP 26...	--	--	--	--	--	--	--	--	--

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
NOV 02...	1.0	.1	17	51	.07	63.9	.05	.04
DEC 14...	--	--	--	--	--	--	--	--
FEB 02...	--	--	--	--	--	--	--	--
MAR 13...	--	--	--	--	--	--	--	--
JUN 14...	--	--	--	--	--	--	--	--
AUG 03...	.7	.0	16	50	.07	63.9	.01	.00
SEP 26...	--	--	--	--	--	--	--	--

13340000 CLEARWATER RIVER AT OROFINO, ID

LOCATION.--Lat 46°28'43", long 116°15'23", in SW¼SE¼NW¼ sec.7, T.36 N., R.2 E., Clearwater County, Hydrologic Unit 17060306, on right bank 56 ft (17 m) upstream from State Highway 7 bridge at Orofino and at mile 44.6 (71.8 km).

DRAINAGE AREA.--5,580 mi^2 (14,450 km^2), approximately.

PERIOD OF RECORD.--October 1930 to September 1938, October 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 990.80 ft (301.996 m) above National Geodetic Datum of 1929 (levels by Idaho Department of Highways). Prior to Sept. 30, 1938, nonrecording gage at site 0.1 mi (0.2 km) downstream at different datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--22 years, 9,047 ft^3/s (256.2 m^3/s), 22.02 in/yr (559 mm/yr), 6,555,000 acre-ft/yr (8,082 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 87,300 ft^3/s (2,470 m^3/s) June 2, 1972, gage height, 18.84 ft (5.742 m), present datum; minimum observed, probably less than 250 ft^3/s (7.08 m^3/s) Jan. 8, 1937, during period of ice effect; minimum gage height, 2.20 ft (0.671 m) Nov. 29, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 8, 1964, reached a stage of 20.32 ft (6.194 m) present site and datum, discharge, 99,700 ft^3/s (2,820 m^3/s).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 30,000 ft^3/s (850 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Dec. 3	0415	40000	1130	12.31	3.752	May 22	1730	39200	1110	12.19	3.716
Apr. 1	1145	35000	991	11.48	3.499	June 7	1030	*51400	1460	13.95	4.252
May 1	1700	33500	949	11.24	3.426						

Minimum discharge, 1,380 ft^3/s (39.1 m^3/s) Nov. 21, 22, gage height, 2.64 ft (0.805 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 23-24, Jan. 4-6)

2.7	1,460	6.5	10,900
3.0	1,900	8.0	16,800
4.0	3,760	10.0	26,600
5.0	6,180	14.0	51,700

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4570	3890	8050	4710	5200	8870	34300	30200	24300	20800	3980	2280
2	3890	3850	19100	3160	5380	7810	34100	30400	25600	19100	3780	2320
3	3300	4420	35800	3690	5900	6940	29400	29600	29100	18600	3610	2190
4	2920	3870	24200	5000	6290	6800	25100	27500	34500	22400	3440	2040
5	2650	3610	17500	5600	6290	7660	22600	25000	40000	22300	3300	1960
6	2470	3650	14300	6000	8260	8500	20800	22700	45300	18900	3160	1980
7	2520	3720	13700	6290	9290	7660	20800	21500	47600	17100	3000	2220
8	3360	3630	11700	5930	9600	7810	19000	20600	46200	17500	2860	2920
9	3420	3320	10200	7870	9180	11600	17500	20700	44900	16900	2740	3560
10	3580	3000	9810	7450	8590	12600	16800	24600	39700	15500	2650	2880
11	3440	3280	10400	6910	7900	11300	17900	31400	34700	14500	2540	2610
12	3040	3140	10300	6850	7160	11500	18400	29800	30000	13000	2470	2860
13	2900	3120	12800	6880	6100	10600	16900	27600	28800	11700	2630	3780
14	2880	3340	20900	6770	5900	9680	16500	29700	31200	10900	3360	3980
15	2880	3980	22800	6990	6010	9010	16200	34100	30700	10300	3460	3300
16	2780	4830	22200	7360	5640	8440	16800	35600	27500	10200	3670	3020
17	2670	4420	17600	7540	5220	8230	17100	33400	24200	10000	4290	2860
18	2600	3850	15100	8710	5020	9040	15700	29900	24200	9080	4290	2720
19	2490	3140	12900	7990	5000	10300	15200	28400	25800	8170	3800	2740
20	2400	2090	10800	8080	5590	11300	16200	29600	25100	7570	3240	2720
21	2320	1500	8980	7690	5980	12400	17500	31900	24500	7100	2960	2610
22	2250	1700	9250	7930	5540	14000	16600	37100	25100	6680	2840	2520
23	2190	2400	9010	7300	5560	16000	16100	34900	25600	6260	3650	2450
24	2120	3000	8260	6570	5800	18600	15100	32900	25700	5960	3780	2380
25	2220	4090	7630	6120	7050	17700	15000	30300	28600	5670	3080	2320
26	4160	9290	7220	6320	8870	16900	17400	27600	27600	5350	2740	2240
27	4620	11600	6680	6150	9880	18200	28600	25400	22400	5020	2580	2160
28	3670	9250	5540	5770	9740	20900	28300	25700	21100	4780	2450	2090
29	3360	8560	5330	5960	---	24000	28000	28000	22300	4880	2360	2090
30	3420	9220	6630	5640	---	28000	26500	26700	22300	4660	2280	2110
31	3830	---	6150	5300	---	31200	---	24800	---	4270	2240	---
TOTAL	94920	132760	400840	200530	191940	403550	616400	887600	904600	355150	97230	77910
MEAN	3062	4425	12930	6469	6855	13020	20550	28630	30150	11460	3136	2597
MAX	4620	11600	35800	8710	9880	31200	34300	37100	47600	22400	4290	3980
MIN	2120	1500	5330	3160	5000	6800	15000	20600	21100	4270	2240	1960
CFSM	.55	.79	2.32	1.16	1.23	2.33	3.68	5.13	5.40	2.05	.56	.47
IN.	.63	.89	2.67	1.34	1.28	2.69	4.11	5.92	6.03	2.37	.65	.52
AC-FT	188300	263300	795100	397800	380700	800400	1223000	1761000	1794000	704400	192900	154500

CAL YR 1977 TOTAL 2178478 MEAN 5968 MAX 35800 MIN 914 CFSM 1.07 IN 14.52 AC-FT 4321000
WTR YR 1978 TOTAL 4363430 MEAN 11950 MAX 47600 MIN 1500 CFSM 2.14 IN 29.09 AC-FT 8655000

13340600 NORTH FORK CLEARWATER RIVER NEAR CANYON RANGER STATION, ID

LOCATION.--Lat 46°50'26", long 115°37'11", in SE¼SE¼NE¼ sec.6, T.40 N., R.7 E., Clearwater County, Hydrologic Unit 17060307, Clearwater National Forest, on left bank immediately upstream from forest road bridge, 0.1 mi (0.2 km) upstream from Beaver Creek, 1.7 mi (2.7 km) downstream from Canyon ranger station, and at mile 58.0 (93.3 km).

DRAINAGE AREA.--1,360 mi^2 (3,520 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,660.00 ft (505.968 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. No regulation or diversion above station.

AVERAGE DISCHARGE.--11 years (1968-78), 3,773 ft^3/s (107 m^3/s), 37.67 in/yr (957 mm/yr), 2,734,000 acre-ft/yr (3,371 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,300 ft^3/s (915 m^3/s) June 16, 1974, gage height, 16.6 ft (5.060 m); maximum gage height, 17.04 ft (5.194 m) June 1, 1972; minimum, 200 ft^3/s (5.66 m^3/s) Dec. 5, 1972, gage height, 5.00 ft (1.524 m).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 12,000 ft^3/s (340 m^3/s) and maximum (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)	Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)
Dec. 2	2400	*18100	513	13.42	4.090	June 7	0345	13600	385	12.17	3.709
May 22	0515	12100	343	11.71	3.569						

Minimum discharge, 522 ft^3/s (14.8 m^3/s) Nov. 20, gage height, 5.57 ft (1.698 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 5-9, May 26 to June 2, June 12 to Aug. 8, Aug. 13-24, Sept. 8;
stage-discharge relation affected by ice Nov. 21-24, Jan. 3-5)

5.2	320	8.0	3,320
5.5	480	10.0	7,340
6.0	840	12.0	13,100
7.0	1,880	14.0	20,400

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

133406

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1440	1470	3170	1710	1650	1940	11300	9510	7320	4660	1620	1180
2	1270	2030	10400	1600	1730	1740	10900	9250	7940	4330	1550	1140
3	1110	1880	15200	1900	1800	1610	9110	9300	8790	4500	1510	1030
4	1020	1540	9950	2150	1820	1850	7970	8790	10100	4700	1480	981
5	957	1440	7110	2400	1790	1910	7260	8220	11300	4170	1450	962
6	926	1450	5970	2660	2050	1870	6520	7640	12500	4020	1390	1070
7	1110	1460	5740	2420	2230	1800	6200	7560	12600	3980	1350	1240
8	1440	1410	4730	2250	2520	2020	5760	7510	12100	3920	1320	1450
9	1270	1260	4170	2340	2480	2890	5550	7890	11600	3810	1280	1250
10	1230	1270	3930	2230	2350	3090	5650	10100	10200	3550	1240	1110
11	1090	1270	3830	2120	2200	2970	6260	10500	9330	3270	1190	1140
12	1020	1240	3960	2070	1930	2870	5820	9880	8520	3140	1190	1180
13	990	1270	4440	2020	1730	2710	5590	9430	8160	3080	1620	1290
14	968	1460	8270	2040	1910	2570	5650	9820	7860	2890	1620	1140
15	931	1940	9520	2880	1880	2370	5450	10700	7420	2820	1400	1070
16	902	1780	8290	2010	1770	2260	5780	10600	6920	2630	1930	1070
17	882	1580	6690	2080	1660	2300	5600	9740	6440	2480	1750	1010
18	864	1400	5790	2100	1650	2790	5210	9050	6310	2420	1750	1020
19	844	989	5010	2050	1610	3440	5300	8950	5870	2380	1460	1010
20	813	657	4220	2030	1630	3560	5980	9710	5810	2390	1350	971
21	795	600	3710	2000	1660	3960	6200	10600	5830	2240	1330	942
22	783	700	3790	2080	1610	4750	5730	11600	5850	2130	1350	923
23	775	800	3580	1990	1680	5740	5620	10400	5810	2060	1880	904
24	771	1100	3250	1860	1780	6930	5270	9740	5730	1990	1450	888
25	972	1690	3030	1870	1870	6210	5670	8920	5690	1770	1280	880
26	1670	4960	2880	1880	1990	5850	6940	8340	5620	1770	1220	856
27	1270	3670	2550	1810	2050	6470	8530	7760	5440	1840	1160	840
28	1050	3060	2150	1760	2010	7540	9080	7740	5200	1660	1130	848
29	1130	3670	2580	1750	---	8340	9060	7910	5050	1630	1090	904
30	1440	3890	2780	1680	---	9840	8720	7510	4870	1590	1050	856
31	1600	---	2430	1640	---	10600	---	7290	---	1590	1110	---
TOTAL	33333	52936	163120	62580	53040	124790	203680	281960	232180	89410	43500	31155
MEAN	1075	1765	5262	2019	1894	4025	6789	9095	7739	2884	1403	1039
MAX	1670	4960	15200	2660	2520	10600	11300	11600	12600	4700	1930	1450
MIN	771	600	2150	1600	1610	1610	5210	7290	4870	1590	1050	840
CFSM	.79	1.30	3.87	1.49	1.39	2.96	4.99	6.69	5.69	2.12	1.03	.76
IN.	.91	1.45	4.46	1.71	1.45	3.41	5.57	7.71	6.35	2.45	1.19	.85
AC-FT	66120	105000	323500	124100	105200	247500	404000	559300	460500	177300	86280	61800

CAL YR 1977 TOTAL 838528 MEAN 2297 MAX 15200 MIN 586 CFSM 1.69 IN 22.94 AC-FT 1663000
WTR YR 1978 TOTAL 1371684 MEAN 3758 MAX 15200 MIN 600 CFSM 2.76 IN 37.52 AC-FT 2721000

13340600 NORTH FORK CLEARWATER RIVER NEAR CANYON RANGER STATION, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970 to current year.
PERIOD OF DAILY RECORD.--
  WATER TEMPERATURES: February 1970 to current year.
INSTRUMENTATION.--Temperature recorder since February 1970.
COOPERATION.--Temperature record furnished by U.S. Corps of Engineers and reviewed by U.S. Geological Survey.
EXTREMES FOR PERIOD OF DAILY RECORD.--
  WATER TEMPERATURES: Maximum, 23.0°C Aug. 4, 5, 1971; minimum, 0.0°C on many days during winter periods.
EXTREMES FOR CURRENT YEAR.--
  WATER TEMPERATURES: Maximum, 21.5°C Aug. 6; minimum, 0.0°C on many days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
NOV					
01...	1130	1440	46	5.0	6.0
DEC					
13...	0855	4170	36	3.5	2.5
FEB					
01...	0945	1750	39	2.5	1.5
JUN					
13...	0805	8500	194	16.0	11.0
AUG					
01...	0745	1550	43	18.0	16.0
SEP					
27...	0610	833	53	14.0	12.5

13340600 NORTH FORK CLEARWATER RIVER NEAR CANYON RANGER STATION, ID--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	10.5	9.5	5.5	5.0	2.0	.5	.0	.0	1.5	1.0	3.5	2.0
2	10.0	9.0	5.0	4.5	3.0	.5	.0	.0	2.0	1.0	2.0	.5
3	10.0	9.0	5.0	4.0	4.5	3.5	.0	.0	2.5	1.5	.5	.5
4	9.5	7.5	4.0	3.5	4.5	3.5	.0	.0	3.0	2.5	2.0	.5
5	8.5	7.0	4.5	3.5	3.5	2.5	.0	.0	3.0	2.5	3.5	2.0
6	7.5	7.0	5.5	4.5	2.5	1.5	.5	.0	3.5	3.0	4.0	3.0
7	8.0	7.0	5.0	4.5	2.5	1.5	.5	.5	3.5	3.0	4.5	3.5
8	8.0	8.0	4.5	3.5	2.0	1.0	1.0	.5	3.5	3.5	4.5	3.5
9	8.5	8.0	3.5	2.0	1.5	1.0	1.0	1.0	3.5	3.0	5.0	4.0
10	8.5	7.5	3.0	2.0	1.5	1.0	1.5	1.0	3.0	3.0	5.0	4.0
11	7.5	6.5	3.5	2.5	3.0	1.5	1.5	1.0	3.0	2.0	4.5	4.0
12	7.0	6.0	3.5	3.0	3.5	3.0	2.0	1.5	2.0	.5	4.0	4.0
13	7.0	6.5	4.0	3.5	3.5	3.0	2.5	2.0	.5	.5	4.0	3.5
14	7.5	7.0	4.0	3.5	4.0	3.0	3.0	2.5	1.5	.5	3.5	3.0
15	8.5	7.0	3.5	3.0	4.0	4.0	3.0	2.5	1.5	1.0	4.0	3.0
16	8.0	7.0	3.0	2.5	4.0	3.5	2.5	2.5	2.5	1.5	4.0	3.0
17	8.0	7.0	3.0	2.5	3.5	2.0	3.0	2.5	2.5	1.5	5.0	3.0
18	7.5	6.5	2.5	1.0	2.5	2.5	3.0	3.0	2.5	2.0	5.5	4.0
19	7.5	6.5	1.0	.5	2.5	2.0	3.0	3.0	3.0	2.0	5.5	4.5
20	7.0	6.5	.5	.0	2.5	.5	3.0	2.5	4.0	2.5	5.0	4.5
21	7.0	6.0	.5	.0	.5	.0	3.5	3.0	4.5	3.5	5.5	4.5
22	6.5	5.5	.5	.0	1.0	.5	3.5	3.0	4.0	3.5	6.0	5.5
23	6.0	5.5	.0	.0	1.5	.5	3.0	2.0	4.0	3.0	6.0	5.0
24	6.5	5.5	.0	.0	1.5	1.5	2.0	1.5	4.0	3.5	5.5	5.0
25	7.5	6.5	.0	.0	1.5	1.5	1.5	1.0	4.5	4.0	5.5	5.0
26	7.5	7.0	.5	.0	2.0	1.5	1.5	1.0	4.0	3.5	6.5	5.0
27	7.0	6.5	1.0	.5	1.5	.0	2.5	1.5	4.0	3.5	6.5	5.5
28	6.5	6.0	1.5	1.0	.0	.0	2.5	2.0	4.0	3.5	6.5	6.0
29	6.5	6.0	3.0	2.0	.0	.0	2.0	2.0	---	---	7.0	5.5
30	6.5	6.5	3.0	2.0	.0	.0	2.0	2.0	---	---	7.0	5.5
31	6.5	5.5	---	---	.5	.0	2.0	1.0	---	---	7.0	5.5
MONTH	10.5	5.5	5.5	.0	4.5	.0	3.5	.0	4.5	.5	7.0	.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.0	6.0	8.0	6.5	10.5	8.5	14.5	13.5	20.5	18.0	17.0	15.5
2	6.5	5.0	7.0	6.5	10.5	10.0	15.0	13.5	20.5	18.0	18.5	16.0
3	5.5	4.0	7.0	6.5	11.0	10.0	15.0	13.5	21.0	18.0	18.5	17.0
4	5.5	5.0	6.5	5.5	11.5	10.0	13.5	12.0	20.5	18.5	18.5	17.5
5	5.5	5.0	6.0	5.0	11.0	9.5	12.5	12.0	21.0	18.5	18.5	17.5
6	5.5	4.5	7.0	6.0	11.5	9.0	14.0	12.0	21.5	19.0	18.0	17.5
7	6.0	5.5	7.5	7.0	11.0	9.0	15.5	14.0	21.0	19.0	17.5	16.0
8	6.0	5.5	8.0	7.0	11.0	9.0	16.0	15.0	21.0	18.5	16.0	15.0
9	7.0	5.5	8.5	7.0	11.5	8.5	16.5	15.0	21.0	18.5	15.5	13.5
10	7.5	6.5	7.5	7.0	9.0	8.0	16.5	15.0	21.0	19.0	15.0	14.5
11	7.5	6.0	7.5	6.5	9.0	8.0	15.0	13.5	20.5	18.5	14.5	13.0
12	5.5	5.0	7.5	6.0	9.5	8.5	14.5	13.0	20.0	18.0	13.0	12.5
13	5.5	4.5	8.0	7.0	10.5	9.5	16.0	14.0	18.5	17.0	13.0	12.0
14	6.0	5.5	8.5	7.5	10.5	10.0	17.5	15.5	17.0	15.5	13.5	12.5
15	6.5	5.5	8.5	7.0	10.5	9.0	18.0	16.5	16.0	15.5	13.5	12.5
16	6.5	5.5	7.0	6.0	9.5	8.5	17.5	16.0	16.0	15.0	12.5	11.0
17	5.5	5.0	6.5	6.5	11.0	8.5	16.0	14.5	14.5	13.5	10.5	10.0
18	6.5	5.0	7.5	6.5	11.5	11.0	15.0	14.0	14.0	12.5	10.0	9.0
19	7.5	6.5	9.5	7.5	11.5	11.0	17.0	14.5	16.0	13.0	10.5	9.0
20	8.0	7.0	9.5	8.5	11.5	10.5	17.0	15.5	16.0	14.5	10.5	9.5
21	7.0	5.0	9.5	8.5	12.5	11.0	17.5	15.5	17.0	15.0	10.5	9.5
22	6.0	5.0	9.5	7.0	13.5	12.0	18.5	16.0	17.0	15.5	10.0	9.5
23	6.0	5.5	7.0	5.5	13.5	12.5	19.0	16.5	16.0	14.5	10.5	9.5
24	7.0	5.5	6.0	5.5	13.5	12.5	19.5	17.0	16.0	14.0	12.0	10.5
25	8.5	7.0	7.0	6.0	12.5	9.5	20.0	17.5	16.0	14.5	13.0	11.5
26	8.5	8.0	7.5	6.5	11.5	9.0	20.0	17.0	16.0	15.0	13.5	12.5
27	8.5	7.0	8.5	7.5	13.5	11.5	21.0	18.0	16.0	14.5	13.5	12.5
28	7.5	7.0	9.5	8.5	14.5	13.0	20.0	18.5	16.0	14.5	13.0	12.0
29	7.5	6.5	9.5	7.5	15.5	13.5	20.0	17.5	16.5	14.5	12.0	11.5
30	7.5	6.5	7.5	7.0	15.5	14.5	20.5	17.5	16.5	15.5	12.0	11.0
31	---	---	9.0	7.0	---	---	20.5	18.0	16.0	15.0	---	---
MONTH	8.5	4.0	9.5	5.0	15.5	8.0	21.0	12.0	21.5	12.5	18.5	9.0
YEAR	21.5	.0										

13340950 DWORSHAK RESERVOIR NEAR AHSAHKA, ID

LOCATION.--Lat 46°31'00", long 116°17'30", in SW¼SE¼ sec.26, T.37 N., R.1 E., Nez Perce County, Hydrologic Unit 17060308, at log-handling area on Dworshak Dam, 1.5 mi (2.4 km) northeast of Ahsahka, and at mile 2.0 (3.2 km).

DRAINAGE AREA.--2,440 mi^2 (6,320 km^2), approximately. Mean altitude, 4,220 ft (1,286 m).

PERIOD OF RECORD.--October 1971 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by straight-axis concrete gravity dam. Total capacity is 3,459,000 acre-ft (4,265 hm^3) between elevations 970.0 ft (295.66 m), bottom of bypass valve, and 1,599.5 ft (487.53 m), maximum pool elevation. Inactive storage for minimum power head is 1,452,000 acre-ft (1,790 hm^3), elevation, 1,445.0 ft (440.44 m). Storage began Sept. 27, 1971. Dworshak Dam is used to regulate annual floodwaters of the North Fork Clearwater River and for power generation.

COOPERATION.--Gage-height record and capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 3,472,000 acre-ft (4,280 hm^3) Aug. 16, 1978, elevation, 1,600.21 ft (487.744 hm^3); minimum since full capacity was attained July 29, 1974, 1,455,000 acre-ft (1,794 hm^3) Mar. 29, 30, 1976, elevation, 1,445.36 ft (440.546 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 3,472,000 acre-ft (4,280 hm^3) Aug. 16, elevation, 1,600.21 ft (487.744 m); minimum, 1,775,000 acre-ft (2,189 hm^3) Mar. 22, elevation, 1,479.33 ft (450.900 m).

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2568000	2550000	2428000	2705000	2305000	1969000	1893000	2473000	3169000	3449000	3464000	3387000
2	2563000	2553000	2464000	2689000	2291000	1957000	1926000	2498000	3180000	3459000	3464000	3387000
3	2558000	2554000	2519000	2676000	2277000	1943000	1954000	2524000	3190000	3460000	3463000	3388000
4	2563000	2555000	2555000	2664000	2264000	1930000	1978000	2547000	3205000	3465000	3462000	3388000
5	2554000	2554000	2573000	2651000	2250000	1917000	1999000	2569000	3223000	3464000	3464000	3376000
6	2552000	2555000	2588000	2640000	2241000	1905000	2019000	2589000	3243000	3461000	3466000	3363000
7	2552000	2555000	2596000	2628000	2233000	1892000	2037000	2609000	3264000	3459000	3462000	3348000
8	2554000	2555000	2598000	2615000	2228000	1881000	2054000	2629000	3285000	3460000	3463000	3337000
9	2556000	2555000	2594000	2603000	2221000	1876000	2070000	2650000	3303000	3466000	3464000	3338000
10	2557000	2554000	2603000	2590000	2212000	1870000	2086000	2679000	3325000	3466000	3463000	3339000
11	2557000	2554000	2616000	2578000	2201000	1863000	2104000	2708000	3348000	3464000	3463000	3327000
12	2557000	2554000	2622000	2564000	2190000	1855000	2121000	2736000	3360000	3463000	3466000	3313000
13	2556000	2557000	2645000	2551000	2176000	1846000	2136000	2762000	3371000	3463000	3468000	3298000
14	2555000	2560000	2685000	2538000	2164000	1836000	2152000	2789000	3378000	3463000	3470000	3284000
15	2556000	2564000	2719000	2525000	2150000	1825000	2168000	2819000	3386000	3465000	3471000	3270000
16	2557000	2568000	2746000	2514000	2136000	1814000	2183000	2848000	3391000	3465000	3470000	3261000
17	2556000	2561000	2771000	2502000	2123000	1803000	2199000	2874000	3394000	3465000	3467000	3261000
18	2554000	2545000	2792000	2490000	2108000	1794000	2214000	2899000	3396000	3464000	3463000	3247000
19	2552000	2527000	2796000	2478000	2094000	1787000	2228000	2923000	3400000	3463000	3465000	3233000
20	2550000	2508000	2797000	2466000	2079000	1781000	2245000	2951000	3402000	3461000	3467000	3218000
21	2548000	2489000	2796000	2454000	2065000	1777000	2262000	2982000	3404000	3459000	3461000	3203000
22	2547000	2471000	2796000	2443000	2050000	1775000	2278000	3007000	3409000	3464000	3460000	3188000
23	2547000	2455000	2794000	2431000	2036000	1777000	2294000	3030000	3415000	3467000	3458000	3170000
24	2546000	2438000	2791000	2418000	2023000	1783000	2309000	3053000	3427000	3466000	3449000	3152000
25	2546000	2425000	2787000	2405000	2012000	1787000	2324000	3073000	3442000	3467000	3439000	3137000
26	2546000	2430000	2781000	2392000	2001000	1788000	2345000	3090000	3444000	3467000	3440000	3124000
27	2545000	2442000	2770000	2378000	1992000	1791000	2370000	3107000	3444000	3466000	3442000	3110000
28	2544000	2436000	2756000	2363000	1981000	1797000	2396000	3121000	3442000	3463000	3427000	3096000
29	2544000	2436000	2744000	2349000	---	1808000	2422000	3136000	3442000	3464000	3414000	3084000
30	2544000	2435000	2733000	2334000	---	1832000	2446000	3147000	3441000	3465000	3405000	3083000
31	2546000	---	2720000	2319000	---	1858000	---	3153000	---	3464000	3399000	---
MAX	2568000	2568000	2797000	2705000	2305000	1969000	2446000	3153000	3444000	3467000	3471000	3388000
MIN	2544000	2425000	2428000	2319000	1981000	1775000	1893000	2473000	3169000	3449000	3399000	3083000
(†)	1543.14	1535.14	1555.16	1526.39	1498.48	1487.33	1535.94	1582.26	1598.51	1599.79	1596.21	1578.10
(‡)	-26000	-111000	+285000	-401000	-338000	-123000	+588000	+707000	+288000	+23000	-65000	-316000

CAL YR 1977............ ‡ +67000
WTR YR 1978............ ‡ +511000

† Elevation, in feet, at end of month.
‡ Change in contents, in thousands of acre-feet.

13341050 CLEARWATER RIVER NEAR PECK, ID

LOCATION.--Lat 46°30'00", long 116°23'30", in NE¼NE¼ sec.1, T.36 N., R.1 W., Nez Perce County, Hydrologic Unit 17060306, on left bank 2 mi (3.2 km) upstream from Big Canyon Creek, 2.2 mi (3.5 km) northeast of Peck, 3 mi (4.8 km) downstream from North Fork Clearwater River, and at mile 37.4 (60.2 km).

DRAINAGE AREA.--8,040 mi² (20,800 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 930 ft or 283 m (from topographic map).

REMARKS.--Records good. Flow regulated by Dworshak Reservoir beginning September 1971.

AVERAGE DISCHARGE.--14 years, 15,840 ft³/s (448.6 m³/s), 11,480,000 acre-ft/yr (14,150 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 127,200 ft³/s (3,600 m³/s) June 16, 1974, gage height, 23.66 ft (7.212 m); maximum gage height, 25.00 ft (7.620 m) Dec. 28, 1967 (ice jam); minimum discharge, 1,260 ft³/s (35.7 m³/s) Oct. 31, 1971, gage height, 2.24 ft (0.683 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 8, 1964, reached a stage of 23.95 ft (7.300 m), from floodmark, discharge, 118,000 ft³/s (3,340 m³/s), from rating extended above 89,100 ft³/s (2,520 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 59,000 ft³/s (1,670 m³/s) June 7, gage height, 15.83 ft (4.825 m); minimum, 3,190 ft³/s (90.3 m³/s) Sept. 4, 5, gage height, 3.74 ft (1.140 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

3.0	2,120	7.0	11,180
4.0	3,650	9.0	19,060
5.0	5,690	11.0	28,600
6.0	8,300	13.0	40,100
		16.0	60,200

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8930	5000	19100	14800	15900	19600	36200	31300	28600	22800	6130	9620
2	8310	5620	24500	12100	16100	18700	36300	31700	30200	20700	6020	3790
3	7330	6660	35200	13500	16700	17900	31200	30700	35900	23900	5740	3400
4	5620	6200	25100	15700	17000	17700	26600	28600	41700	27300	5620	3260
5	5120	5940	21400	16300	17100	18600	23900	26000	47600	29100	4340	9050
6	4960	5950	17400	17000	19000	19500	22000	23600	52700	25600	4190	10000
7	4950	6100	20100	16500	20100	18700	21800	22300	55300	24100	6240	10400
8	4490	5870	19200	16100	20200	18800	20300	21300	53300	22800	3920	10600
9	4620	5540	19500	18200	20000	22300	18700	21300	52600	18600	4400	4680
10	5230	5210	12500	17900	19500	23700	17800	25100	44700	20600	4250	3980
11	5160	5440	11000	17400	18800	22400	18900	32500	37200	19400	4140	9850
12	4630	4810	14400	17300	18000	22500	19500	30800	35400	17100	3560	11000
13	5030	4110	13000	17300	17000	21600	18100	28400	34000	15400	3680	11800
14	4590	4780	21700	17200	16800	20700	17600	30400	38200	14200	4860	12200
15	4020	5550	26800	17400	16900	20200	17100	36000	37700	12900	5090	11100
16	3930	5700	26400	17900	16700	19500	17800	37900	34400	12800	6770	8830
17	4270	9980	18600	18000	15700	19200	18200	35400	30800	13500	8000	4380
18	4840	13900	15800	19300	16000	20000	16700	31500	30800	12300	8060	10300
19	4920	13200	19700	18600	16000	21100	16000	29800	32400	11800	4920	11000
20	4880	12300	17700	18600	16500	22000	17000	30400	31900	11400	4380	11000
21	4760	11700	15900	18300	17100	23000	18400	32500	31000	10300	6820	10900
22	4030	11500	16000	18500	16600	24500	17500	41600	30100	7590	6130	10800
23	3350	13000	15900	18000	16600	26500	17000	39400	30600	7060	6730	12200
24	3750	13700	15200	17100	16600	29300	15900	37100	27300	8800	9610	12100
25	4520	14300	14500	16700	17600	28500	15600	34000	29900	7660	9330	10600
26	6320	15500	14600	16900	19600	27700	18100	31100	34600	7340	4000	9950
27	6490	12200	16700	16900	20600	28700	29300	28800	28900	7900	3750	9890
28	6030	17300	15600	16500	20600	31400	29400	28900	28100	8090	10400	9770
29	5750	16300	15300	16600	---	33700	29100	31200	29400	6620	9710	9690
30	5780	16800	16700	16400	---	32900	27700	31400	29500	6430	7710	3970
31	5590	---	16200	16000	---	36500	---	29200	---	6430	7070	---
TOTAL	162700	280160	571700	525000	495300	727600	649700	950200	1084800	460570	185570	270110
MEAN	5248	9339	18440	16940	17690	23470	21660	30650	36160	14860	5986	9004
MAX	8930	17300	35200	19300	20600	36500	36300	41600	55300	29100	10400	12200
MIN	3350	4110	11000	12100	15700	17700	15600	21300	27300	6430	3560	3260
AC-FT	322700	555700	1134000	1041000	982400	1443000	1289000	1885000	2152000	913500	368100	535800

CAL YR 1977 TOTAL 3446910 MEAN 9444 MAX 35200 MIN 2130 AC-FT 6837000
WTR YR 1978 TOTAL 6363410 MEAN 17430 MAX 55300 MIN 3260 AC-FT 12620000

13341050 CLEARWATER RIVER NEAR PECK, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.
PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1964 to current year.
INSTRUMENTATION.--Temperature recorder since October 1964.
COOPERATION.--Temperature records furnished by U.S. Corps of Engineers and reviewed by U.S. Geological Survey.
EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 25°C Aug. 1, 2, 1965, July 28, 1968; minimum, 0.0°C on many days during winter periods.
EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 22.0°C Aug. 6; minimum, 0.0°C Nov. 26, 27.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
DEC					
12...	1130	--	50	5.5	3.5
FEB					
01...	1350	15900	42	6.5	3.5
JUN					
13...	1535	36800	158	17.0	10.0

13341050 CLEARWATER RIVER NEAR PECK, ID--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	11.5	10.5	7.5	7.5	3.5	3.5	2.5	2.5	3.0	3.0	4.5	4.0
2	12.0	11.0	8.0	7.0	3.5	2.0	3.0	2.5	3.0	3.0	4.0	3.5
3	12.0	11.0	7.0	6.5	3.5	2.5	3.0	3.0	3.5	3.0	3.5	3.0
4	11.5	10.0	7.0	6.0	3.5	3.5	3.0	.5	3.5	3.0	3.5	3.0
5	11.5	10.5	7.0	6.5	3.5	3.0	2.5	2.0	3.5	3.0	3.5	3.5
6	11.5	10.5	7.0	7.0	3.0	2.5	2.5	.5	3.5	3.5	4.5	3.5
7	11.0	10.5	7.0	6.5	3.5	2.5	2.5	2.0	3.5	3.5	4.0	4.0
8	11.0	9.5	6.5	5.5	3.0	2.5	3.0	2.5	4.0	3.5	4.5	4.0
9	10.5	10.0	6.0	5.5	3.0	3.0	3.0	2.5	3.5	3.5	5.0	4.5
10	10.5	9.5	6.5	6.0	3.0	2.0	3.0	3.0	3.5	3.5	4.5	4.5
11	11.0	9.0	6.0	6.0	3.0	2.0	3.5	3.0	3.5	3.5	4.5	4.5
12	10.5	9.0	6.0	5.5	4.0	3.0	3.5	3.5	3.5	3.0	4.5	4.5
13	11.0	9.5	5.5	5.0	4.0	3.5	3.5	3.5	3.0	2.5	4.5	4.0
14	11.0	9.5	5.5	5.0	4.0	4.0	3.5	3.5	3.0	2.5	4.5	4.0
15	11.0	9.0	5.5	5.5	4.5	4.0	3.5	3.5	3.0	3.0	4.5	4.0
16	11.0	9.5	5.5	4.5	4.5	4.0	3.5	3.5	3.5	3.0	4.5	4.0
17	11.0	9.5	6.0	4.5	3.5	3.0	4.0	3.5	3.5	3.0	5.0	4.0
18	11.0	9.5	5.5	5.5	3.0	2.5	4.0	3.5	3.5	3.0	5.5	4.5
19	11.0	10.0	5.5	5.5	3.5	2.5	4.0	4.0	3.5	3.5	5.0	5.0
20	11.0	9.5	6.0	5.5	3.5	2.5	4.0	3.5	4.0	3.5	5.5	5.0
21	10.5	9.5	6.0	6.0	2.5	1.0	4.0	3.5	4.0	3.5	5.5	5.0
22	10.0	9.0	6.0	5.0	2.5	.5	4.0	3.5	4.0	3.5	6.0	5.5
23	9.5	9.0	5.0	4.0	2.5	1.0	3.5	3.5	4.0	3.5	6.0	5.5
24	10.0	8.5	4.0	4.0	3.0	1.0	3.5	3.0	4.0	3.5	6.0	5.0
25	10.0	9.5	4.0	4.0	3.0	2.0	3.0	3.0	4.0	4.0	6.0	5.5
26	9.5	8.5	4.0	.0	3.0	2.0	3.0	3.0	4.5	4.0	6.0	5.5
27	9.0	8.5	.5	.0	3.5	3.0	3.0	3.0	4.5	4.0	7.0	6.0
28	9.0	8.5	3.0	.5	3.5	3.0	3.0	3.0	4.0	4.0	7.0	6.0
29	9.0	8.5	3.5	2.0	3.0	3.0	3.5	3.0	---	---	7.5	6.0
30	9.0	8.5	3.5	2.5	2.5	2.5	3.5	3.0	---	---	7.5	6.0
31	8.5	7.5	---	---	2.5	2.5	3.0	3.0	---	---	7.0	5.5
MONTH	12.0	7.5	8.0	.0	4.5	.5	4.0	.5	4.5	2.5	7.5	3.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.0	6.5	8.0	7.0	10.0	8.0	13.5	12.5	19.0	17.0	15.5	14.0
2	6.0	5.5	7.5	6.5	11.0	9.0	13.5	12.0	19.0	17.0	19.0	15.0
3	6.0	5.0	8.0	7.0	11.0	10.0	13.5	12.0	19.0	17.0	19.5	17.5
4	6.0	5.0	7.5	6.5	11.0	10.0	12.5	12.0	19.0	17.0	19.0	17.0
5	5.5	5.0	6.5	5.5	10.5	9.5	12.5	11.5	21.5	18.0	18.0	14.5
6	6.0	5.5	7.5	5.5	10.5	9.0	13.5	12.0	22.0	19.0	16.0	14.5
7	6.0	6.0	9.0	7.0	10.0	9.0	14.5	13.0	20.0	15.0	15.0	13.5
8	6.5	5.5	9.5	7.5	10.5	9.0	15.5	14.0	21.5	16.0	14.5	13.5
9	7.5	6.0	9.5	8.0	10.5	8.5	15.0	14.5	20.5	18.5	16.5	14.5
10	8.0	7.0	9.0	8.0	8.5	8.0	15.0	14.0	20.0	18.0	16.5	15.5
11	8.0	7.5	8.5	7.5	9.0	7.5	15.0	14.0	19.0	17.5	15.5	14.0
12	7.5	6.0	8.0	7.0	10.0	8.5	15.0	14.0	19.0	18.0	14.0	13.0
13	7.0	5.5	9.0	7.5	9.5	8.5	15.5	14.5	18.0	17.0	13.5	13.0
14	7.0	6.0	9.5	8.0	11.0	9.5	16.0	15.5	17.0	16.0	14.0	13.0
15	7.0	6.5	9.0	8.0	10.5	9.5	17.0	16.0	17.0	16.0	13.5	13.0
16	7.5	6.5	7.5	6.5	10.0	9.0	17.0	16.0	16.5	15.0	13.5	13.0
17	6.5	6.0	7.0	6.5	10.5	8.5	16.0	15.0	15.5	14.0	13.0	12.0
18	7.0	6.0	8.0	6.5	11.5	10.0	16.0	15.5	14.5	13.5	12.5	11.5
19	8.0	6.5	9.5	7.5	11.0	9.5	16.0	15.0	16.5	14.5	13.0	11.5
20	8.0	7.5	10.0	8.5	11.0	10.0	16.0	15.5	16.5	15.0	13.0	12.0
21	7.5	7.0	10.0	8.5	12.0	10.0	17.0	15.5	15.5	14.5	13.0	12.5
22	7.0	6.0	9.5	8.0	12.0	10.5	19.0	15.5	16.0	14.0	12.5	12.0
23	7.5	6.5	7.5	6.5	12.5	10.5	19.0	17.5	16.0	14.5	13.0	12.0
24	8.0	7.0	7.0	6.0	12.5	11.5	18.5	16.5	16.0	14.5	13.5	12.5
25	8.5	7.5	7.5	6.0	12.0	10.0	19.0	16.5	15.5	14.0	14.0	12.5
26	9.5	8.5	8.5	7.0	10.5	9.0	19.5	17.5	18.0	15.0	14.5	13.5
27	9.0	8.0	9.0	7.5	12.5	10.0	19.5	17.0	18.0	15.5	14.0	13.5
28	8.0	7.5	10.0	8.5	13.0	11.5	18.0	16.5	17.0	14.0	14.0	13.5
29	8.5	7.5	10.0	8.5	13.5	12.0	20.0	16.5	15.0	14.5	14.0	13.0
30	8.0	7.0	9.0	7.5	13.5	12.5	20.0	18.0	16.0	14.5	14.0	13.0
31	---	---	9.0	7.0	---	---	19.0	17.5	15.5	15.0	---	---
MONTH	9.5	5.0	10.0	5.5	13.5	7.5	20.0	11.5	22.0	13.5	19.5	11.5
YEAR	22.0	.0										

13342450 LAPWAI CREEK NEAR LAPWAI, ID

LOCATION.--Lat 46°25'36", long 116°48'15", in NW¼NE¼NW¼ sec.35, T.36 N., R.4 W., Nez Perce County, Hydrologic Unit 17050306, on right bank 40 ft (12 m) upstream from county bridge, 0.7 mi (1.1 km) downstream from Tom Beall Creek, 1.6 mi (2.6 km) north of Lapwai, 1.6 mi (2.6 km) south of Spalding, and at mile 1.9 (3.1 km).

DRAINAGE AREA.--235 mi² (609 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 864.64 ft (263.5 m).

REMARKS.--Records good. Diversions above station for irrigation of about 1,500 acres (607 hm²).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,200 ft³/s (62.3 m³/s) Dec. 1, 1975, gage height, 8.67 ft (2.643 m); minimum, 0.85 ft³/s (0.024 m³/s) Aug. 18, 19, 1977, gage height, 3.00 ft (0.914 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 4,380 ft³/s (124 m³/s) January 1965 on basis of slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 400 ft³/s (11.3 m³/s) and maximum (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft³/s)	(m³/s)	(ft)	(m)	Date	Time	(ft³/s)	(m³/s)	(ft)	(m)
Dec. 2	1545	747	21.2	6.50	1.981	Feb. 26	2115	520	14.7	5.82	1.774
Dec. 14	0245	*925	26.2	6.80	2.073	Mar. 9	1515	905	25.6	6.66	2.030
Feb. 6	a1800	564	16.0	5.94	1.811	Apr. 28	1015	480	13.6	5.80	1.768

a Approximately.

Minimum discharge, 3.3 ft³/s (0.093 m³/s) Aug. 11, gage height, 3.40 ft (1.036 m); minimum gage height, 3.35 ft (1.021 m) Nov. 21.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 1-6)

Oct. 1 to Dec. 13				Dec. 14 to Sept. 30			
3.4	11.4	4.2	92.5	3.4	3.3	4.5	113
3.5	17.7	4.5	144	3.5	6.1	5.0	218
3.7	32.0	5.0	255	3.6	10.0	5.5	358
3.9	52.5	6.0	568	3.8	22.5	6.0	540
				4.1	55.0	6.5	760

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	20	85	62	134	273	281	328	102	22	6.1	11
2	28	20	418	64	134	223	262	262	91	20	5.5	9.6
3	24	20	353	69	147	200	220	238	89	18	5.5	9.2
4	21	20	221	78	198	203	196	205	81	20	5.8	8.8
5	19	20	162	90	243	235	206	188	74	27	5.3	9.6
6	17	20	140	97	453	248	186	175	56	23	5.3	11
7	17	21	174	107	417	243	270	159	51	19	5.0	20
8	18	21	129	118	371	377	304	159	47	19	5.0	30
9	17	20	118	179	287	715	298	149	43	22	4.7	21
10	16	16	118	191	236	560	254	164	43	74	4.7	18
11	16	16	154	182	210	431	223	164	43	37	3.9	17
12	16	16	185	177	184	414	195	155	40	26	5.0	15
13	15	16	339	170	162	337	177	147	37	21	9.2	15
14	14	16	701	179	170	290	172	136	40	18	13	14
15	13	18	453	208	166	273	172	157	36	16	12	14
16	13	20	313	259	157	278	168	168	32	21	18	18
17	13	20	256	262	125	322	151	215	27	23	15	21
18	13	20	218	265	130	355	128	181	23	18	13	22
19	13	16	184	238	128	343	116	164	21	16	11	16
20	13	16	138	256	184	316	120	153	20	14	11	14
21	13	14	136	254	243	290	115	145	18	12	12	14
22	14	16	127	273	248	287	110	205	16	12	22	14
23	15	22	118	228	251	295	106	188	18	12	30	17
24	15	25	107	188	287	295	104	195	21	12	20	17
25	16	37	99	172	393	265	102	203	26	10	17	16
26	21	116	90	168	438	256	100	186	23	9.2	15	13
27	22	102	85	149	368	251	200	175	19	7.7	13	12
28	21	91	84	143	310	235	435	166	16	7.7	13	12
29	21	96	105	149	---	220	407	151	20	7.7	12	12
30	21	91	100	143	---	210	371	136	20	6.9	11	12
31	20	---	85	136	---	205	---	111	---	6.1	11	---
TOTAL	548	982	5995	5254	6774	9445	6149	5528	1193	577.3	340.0	453.2
MEAN	17.7	32.7	193	169	242	305	205	178	39.8	18.6	11.0	15.1
MAX	33	116	701	273	453	715	435	328	102	74	30	30
MIN	13	14	84	62	125	200	100	111	16	6.1	3.9	8.8
CFSM	.08	.14	.82	.72	1.03	1.30	.87	.76	.17	.08	.05	.06
IN.	.09	.16	.95	.83	1.07	1.50	.97	.88	.19	.09	.05	.07
AC-FT	1090	1950	11890	10420	13440	18730	12200	10960	2370	1150	674	899

CAL YR 1977 TOTAL 12586.8 MEAN 34.5 MAX 701 MIN 1.4 CFSM .15 IN 1.99 AC-FT 24970
WTR YR 1978 TOTAL 43238.5 MEAN 118 MAX 715 MIN 3.9 CFSM .50 IN 6.84 AC-FT 85760

13342450 LAPWAI CREEK NEAR LAPWAI, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
OCT										
19...	1415	13	343	8.3	14.5	13.0	110	0	28	10
NOV										
17...	1400	20	216	--	12.0	6.0	--	--	--	--
DEC										
14...	1305	476	121	--	9.0	7.0	--	--	--	--
JAN										
25...	1425	162	85	--	3.5	4.5	--	--	--	--
FEB										
15...	1325	169	180	--	2.5	4.5	--	--	--	--
MAR										
23...	1055	286	120	--	17.0	9.5	--	--	--	--
APR										
20...	1250	120	170	--	13.0	11.0	--	--	--	--
MAY										
24...	1315	207	127	--	16.0	13.0	--	--	--	--
JUN										
21...	0900	19	103	--	23.5	23.5	--	--	--	--
AUG										
04...	1015	5.4	248	8.3	27.5	20.5	130	0	34	12
24...	1145	22	268	8.0	22.0	18.0	110	0	29	9.4
SEP										
20...	1545	16	264	9.2	16.5	16.0	120	0	31	10

DATE	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
OCT									
19...	18	23	.7	3.6	170	0	140	7.2	3.6
NOV									
17...	--	--	--	--	--	--	--	--	--
DEC									
14...	--	--	--	--	--	--	--	--	--
JAN									
25...	--	--	--	--	--	--	--	--	--
FEB									
15...	--	--	--	--	--	--	--	--	--
MAR									
23...	--	--	--	--	--	--	--	--	--
APR									
20...	--	--	--	--	--	--	--	--	--
MAY									
24...	--	--	--	--	--	--	--	--	--
JUN									
21...	--	--	--	--	--	--	--	--	--
AUG									
04...	18	20	.6	3.9	180	0	150	14	7.1
24...	14	21	.6	4.4	150	0	123	5.8	3.3
SEP									
20...	18	22	.6	3.4	140	10	145	17	2.7

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13342450 LAPWAI CREEK NEAR LAPWAI, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	SEDIMENT, SUS-PENDED (MG/L)	SEDIMENT DIS-CHARGE, SUS-PENDED (T/DAY)
OCT									
19...	.2	36	188	.26	6.60	--	.09	--	--
NOV									
17...	--	--	--	--	--	--	--	--	--
DEC									
14...	--	--	--	--	--	--	--	--	--
JAN									
25...	--	--	--	--	--	--	--	--	--
FEB									
15...	--	--	--	--	--	--	--	--	--
MAR									
23...	--	--	--	--	--	--	--	--	--
APR									
20...	--	--	--	--	--	--	--	25	8.1
MAY									
24...	--	--	--	--	--	--	--	--	--
JUN									
21...	--	--	--	--	--	--	--	24	1.2
AUG									
04...	.2	33	211	.29	3.50	.43	.04	--	--
24...	.2	39	183	.25	10.9	.99	.31	--	--
SEP									
20...	.2	34	201	.27	8.95	--	.05	--	--

13342500 CLEARWATER RIVER AT SPALDING, ID

LOCATION.--Lat 46°26'55", long 116°49'35", in Indian allotment 198, NE¼SW¼ sec.22, T.36 N., R.4 W., Nez Perce County, Hydrologic Unit 17060306, Nez Perce Indian Reservation, on left bank 0.4 mi (0.6 km) downstream from Lapwai Creek, 0.6 mi (1.0 km) west of Spalding Post Office, 0.9 mi (1.4 km) upstream from U.S. Highway 95 bridge, and at mile 11.6 (18.7 km).

DRAINAGE AREA.--9,570 mi² (24,790 km²), approximately. Mean altitude, 4,360 ft (1,329 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1910 to October 1913, October 1924 to January 1925, April 1925 to current year. Published as "near Lewiston" 1910-13, 1924-27. Records published for both sites March 1926 to September 1927.

REVISED RECORDS.--WSP 1737: 1927, 1935, 1943.

GAGE.--Water-stage recorder. Altitude of gage is 770.5 ft (234.85 m) estimated from datum of gage 3,100 ft (945 m) upstream. See WRD for Idaho 1966-68 for history of changes prior to Oct. 1, 1962.

REMARKS.--Records good. Diversions above station for irrigation of about 1,630 acres (660 hm²) 1966 determination. Regulation of the North Fork Clearwater River at Ahsahka began on Sept. 27, 1971, when diversion tunnel at Dworshak Dam was closed.

AVERAGE DISCHARGE.--56 years (1910-13, 1925-78), 15,580 ft³/s (441.2 m³/s), 11,290,000 acre-ft/yr (13,920 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 177,000 ft³/s (5,010 m³/s) May 29, 1948, gage height, 23.76 ft (7.242 m); maximum gage height, 27.77 ft (8.464 m) Feb. 5, 1963, from floodmark (ice jam); minimum daily discharge, 500 ft³/s (14.2 m³/s) Jan. 9, 1937, Dec. 1, 1952.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1894 reached a stage of 20.8 ft (6.34 m), site and datum in use 1924-26, discharge, 136,000 ft³/s (3,850 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 58,800 ft³/s (1,670 m³/s) June 7, gage height, 12.98 ft (3.956 m); minimum, 3,140 ft³/s (88.9 m³/s) Sept. 5, gage height, 3.10 ft (0.945 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

3.0	3,000	9.0	27,400
4.0	5,220	11.0	41,800
5.0	8,400	13.0	59,000
7.0	16,500		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9610	5000	18900	15200	16200	21300	37200	30400	28600	23000	6010	9030
2	8660	5400	25600	13500	16400	19400	37300	32100	24600	20400	6040	5440
3	7650	6280	41600	13500	17500	18600	32700	30700	35100	22800	5810	3380
4	5920	6360	28500	15300	18400	18300	27400	28900	40600	25700	5630	3250
5	5080	5920	22400	16200	19000	19300	24400	26200	46600	29400	4760	7250
6	4900	5840	18200	16800	23800	20300	22300	23500	51900	25500	4150	9840
7	4620	6070	20100	17000	24500	19500	22100	21900	54000	23500	5000	10300
8	4350	5870	19100	16500	24500	19800	21200	21100	53000	22100	5050	10800
9	4560	5720	20200	19600	22800	24200	19300	20900	52000	19200	4130	6160
10	4740	5350	14700	19700	21300	26100	18200	23600	43500	19600	4150	4150
11	5110	5380	12500	18700	20200	24000	18500	31700	37000	19100	4030	7960
12	4610	5080	15600	18200	19200	23800	19700	31100	34500	17200	3600	11000
13	4620	4300	16500	18200	17900	23200	18200	28200	33800	15200	3540	11600
14	4640	4510	27900	18300	17400	21900	17400	29700	37600	14300	4380	12200
15	4060	5440	30200	18800	17500	21100	17000	34600	37600	13400	5140	11600
16	3850	6010	30400	19100	17200	20500	17400	38000	34600	12800	6190	8420
17	3940	8350	20900	19800	16200	20000	18200	36400	31000	13200	8000	6280
18	4510	14200	17600	21400	16400	20600	16600	32300	30200	12700	8100	8420
19	4820	13600	19500	20500	16400	21700	15800	30100	31700	12000	5610	11000
20	4710	12700	18400	20500	17100	22500	16400	30100	31600	11500	4480	11000
21	4640	12000	16300	20100	18000	23300	18000	31900	30600	10500	6190	10900
22	4060	11700	16200	20400	17500	24700	17500	34900	29400	8500	6500	10800
23	3390	12800	16200	19400	17300	26800	16700	40000	29800	7250	6560	12100
24	3380	13700	15500	18100	17500	30000	15800	37400	27100	8210	8600	12200
25	4010	14300	14600	17400	18600	29600	15400	35000	28100	8170	9500	11100
26	5350	16400	14400	17500	21200	28300	17100	31700	34500	7480	5440	9950
27	7080	13700	16800	17400	22500	29000	26500	29100	28600	7580	3710	9870
28	6160	16500	15900	16900	22500	31500	29900	28800	27400	8170	8780	9800
29	5690	16300	15200	17000	---	34300	29500	31100	28400	7180	9950	9800
30	5610	16300	15800	16800	---	32600	27900	31500	28800	6590	7890	5300
31	5630	---	15800	16400	---	36300	---	29500	---	6470	7250	---
TOTAL	160210	280960	61 400	554300	535000	753000	653700	948000	1067200	458700	184170	270900
MEAN	5168	9365	19750	17880	19110	24290	21790	30580	35570	14800	5941	9030
MAX	9610	16500	41600	21400	24500	36300	37300	40000	54000	29400	9950	12200
MIN	3380	4300	12500	13500	16200	18300	15400	20900	27100	6470	3540	3250
AC-FT	317800	557300	1215000	1099000	1061000	1494000	1297000	1880000	2117000	909800	365300	537300

CAL YR 1977 TOTAL 3481940 MEAN 9540 MAX 41600 MIN 2300 AC-FT 6907000
WTR YR 1978 TOTAL 6478540 MEAN 17750 MAX 54000 MIN 3250 AC-FT 12850000

13342500 CLEARWATER RIVER AT SPALDING, ID--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959-60, 1968 to current year.
PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1959 to current year.
INSTRUMENTATION.--Temperature recorder since October 1959.
EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 28°C Aug. 13, 1963; minimum, 0.0°C on several days during winter periods.
EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 23.5°C Aug. 7-9; minimum, 1.0°C Nov. 27, 28.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (JTU)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
OCT											
19...	0900	4710	53	--	11.0	11.0	--	--	--	--	--
NOV											
16...	1100	5780	75	7.1	3.0	5.0	6	--	12.0	97	K26
DEC											
14...	0830	27000	48	7.5	6.5	5.0	190	--	12.0	96	350
JAN											
26...	0845	17500	82	7.0	3.0	3.0	6	--	4.8	37	K310
FEB											
16...	0830	17400	80	6.5	3.5	3.0	5	--	8.6	67	K24
MAR											
22...	1430	25300	45	7.1	22.0	9.5	4	--	10.9	105	20
APR											
19...	1000	16100	66	6.1	18.0	7.0	2	--	11.5	102	K17
28...	1015	29700	--	--	--	--	--	--	--	--	--
MAY											
03...	1630	31200	--	--	--	--	--	--	--	--	--
15...	1814	37500	--	--	--	--	--	--	--	--	--
17...	1800	37900	--	--	--	--	--	--	--	--	--
25...	1115	33900	49	6.2	12.0	6.0	--	3.3	5.6	51	50
JUN											
05...	1445	49800	--	--	--	--	--	--	--	--	--
06...	1310	55000	--	--	--	--	--	--	--	--	--
08...	1145	55400	--	--	--	--	--	--	--	--	--
12...	1530	37400	27	7.8	--	--	--	--	--	--	--
14...	1650	39900	37	7.2	--	--	--	--	--	--	--
19...	1315	32300	24	6.3	29.0	14.5	--	1.0	6.1	65	K10
JUL											
20...	1500	11900	32	7.1	33.0	19.4	--	.60	9.3	103	26
AUG											
23...	0930	3980	*37	7.4	15.5	14.5	--	29	8.7	87	1200
SEP											
21...	1330	12300	34	6.9	17.5	11.5	--	1.0	10.0	97	100

* Not a field determination.
K Results based on count outside ideal colony count range.

13342500 CLEARWATER RIVER AT SPALDING, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)
OCT											
19...	--	--	--	--	--	--	--	--	--	--	--
NOV											
16...	48	15	0	4.3	1.1	2.2	23	.2	.7	44	0
DEC											
14...	>1000	18	0	4.7	1.5	2.3	20	.2	1.4	24	0
JAN											
26...	190	17	0	4.7	1.2	2.1	20	.2	.9	24	0
FEB											
16...	120	20	0	5.5	1.5	2.3	19	.2	.8	24	0
MAR											
22...	K200	15	0	4.4	1.0	1.8	19	.2	.9	24	0
APR											
19...	20	12	0	3.5	.8	1.5	20	.2	.6	17	0
28...	--	--	--	--	--	--	--	--	--	--	--
MAY											
03...	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--
25...	96	10	0	2.7	.8	1.8	27	.2	.5	27	0
JUN											
05...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
19...	K470	9	0	2.8	.4	1.1	21	.2	.4	12	0
JUL											
20...	420	9	0	2.5	.7	1.6	26	.2	.5	17	0
AUG											
23...	3600	13	0	3.7	.9	1.9	23	.2	.6	24	0
SEP											
21...	92	14	0	4.0	.9	1.5	18	.2	.6	22	0

DATE	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)
OCT											
19...	--	--	--	--	--	--	--	--	--	--	--
NOV											
16...	36	1.7	.5	.1	13	30	45	.04	468	.05	.00
DEC											
14...	20	6.4	1.2	.1	17	64	47	.09	4670	1.2	2.2
JAN											
26...	20	2.8	.6	.1	16	37	40	.05	1750	.36	.04
FEB											
16...	20	3.6	.5	.1	16	44	42	.06	2070	1.1	.03
MAR											
22...	20	2.8	.5	.1	15	29	34	.04	1980	.14	.00
APR											
19...	14	1.9	.4	.2	13	29	30	.04	1260	.05	.01
28...	--	--	--	--	--	46	--	.06	3690	--	--
MAY											
03...	--	--	--	--	--	20	--	.03	1690	--	--
15...	--	--	--	--	--	21	--	.03	2130	--	--
17...	--	--	--	--	--	25	--	.03	2560	--	--
25...	22	2.3	.5	.1	11	28	33	.04	2560	.05	.01
JUN											
05...	--	--	--	--	--	20	--	.03	2690	--	--
06...	--	--	--	--	--	15	--	.02	2230	--	--
08...	--	--	--	--	--	13	--	.02	1950	--	--
12...	--	--	--	--	--	16	--	.02	1620	--	--
14...	--	--	--	--	--	21	--	.03	2260	--	--
19...	10	5.3	.2	.1	9.6	18	26	.02	1570	.05	.01
JUL											
20...	14	1.1	.3	.1	10	26	25	.04	835	.01	.00
AUG											
23...	20	1.6	.6	.1	11	25	32	.03	269	.05	.00
SEP											
21...	18	4.0	.0	.0	10	27	32	.04	897	.02	.00

13342500 CLEARWATER RIVER AT SPALDING, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)
OCT											
19...	--	--	--	--	--	--	--	--	--	--	--
NOV											
16...	--	--	--	.18	--	--	.03	.01	3.2	--	--
DEC											
14...	--	--	--	1.2	--	--	.43	.07	--	13	3.8
JAN											
26...	.45	.49	.10	.39	.85	3.8	.04	.03	2.7	--	--
FEB											
16...	.00	.02	.00	.02	1.1	5.0	.03	.02	11	--	--
MAR											
22...	.10	.10	.05	.05	.24	1.1	.04	.03	--	2.5	.5
APR											
19...	.60	.61	.40	.21	.66	2.9	.01	.01	2.4	--	--
28...	--	--	--	--	--	--	--	--	--	--	--
MAY											
03...	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	.69	--	--	.01	.01	2.1	--	--
JUN											
05...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
19...	.28	.29	.08	.21	.34	1.5	.01	.02	--	1.7	.6
JUL											
20...	.25	.25	.00	.25	.26	1.2	.02	.00	1.9	--	--
AUG											
23...	.38	.38	.14	.24	.43	1.9	.08	.02	31	--	--
SEP											
21...	.20	.20	.05	.15	.22	.97	.01	.00	--	17	.3

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)
DEC										
14...	1	0	1	200	200	0	9	7	2	0
MAR										
22...	1	0	1	200	0	200	6	4	2	0
JUN										
19...	0	0	0	200	100	100	10	8	2	5
SEP										
21...	1	0	1	0	0	0	17	14	3	10

DATE	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)
DEC										
14...	0	0	6	5	1	25	19	6	15000	--
MAR										
22...	0	10	0	0	0	4	3	1	660	--
JUN										
19...	0	5	0	0	0	16	13	3	300	--
SEP										
21...	10	0	0	0	1	7	5	2	70	50

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13342500 CLEARWATER RIVER AT SPALDING, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)
DEC 14...	50	86	73	13	160	160	0	.2	.0	.3
MAR 22...	70	22	3	19	20	20	0	.0	.0	.0
JUN 19...	20	110	57	53	0	0	0	.2	.1	.1
SEP 21...	20	130	120	13	10	10	0	.0	.0	.0

DATE	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, SUS-PENDED RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
DEC 14...	0	0	0	0	0	0	100	40	60
MAR 22...	2	2	0	0	0	1	10	10	0
JUN 19...	0	0	0	0	0	0	20	20	5
SEP 21...	0	0	0	0	0	0	10	10	0

13342500 CLEARWATER RIVER AT SPALDING, ID--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1977 TO JULY 1978

	NOV 16,77	MAR 22,78	MAY 25,78	JUN 19,78	JUL 20,78
DATE	NOV 16,77	MAR 22,78	MAY 25,78	JUN 19,78	JUL 20,78
TIME	1100	1430	1115	1315	1500
TOTAL CELLS/ML	2400	300	710	1400	1700
DIVERSITY: DIVISION	0.6	0.0	0.9	1.7	0.7
.CLASS	0.6	0.0	0.9	1.7	0.7
..ORDER	0.6	0.2	1.1	1.9	0.7
...FAMILY	1.9	2.3	1.7	2.4	1.1
....GENUS	2.4	2.5	2.4	2.4	1.1

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHARACIACEAE										
....SCHROEDERIA	23	1	--	-	--	-	--	-	--	-
...COELASTRACEAE										
....COELASTRUM	--	-	--	-	--	-	370#	27	--	-
...HYDRODICTYACEAE										
....PEDIASTRUM	92	4	--	-	--	-	--	-	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	--	-	--	-	--	-	--	-	14	1
....NEPHROCYTIUM	180	8	--	-	--	-	--	-	--	-
..ZYGNEMATALES										
...DESMIDIACEAE										
....STAURASTRUM	23	1	--	-	--	-	--	-	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	--	-	8	3	29	4	--	-	--	-
....MELOSIRA	--	-	--	-	--	-	120	8	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	--	-	29	4	69	5	55	3
....COCCONEIS	69	3	--	-	--	-	--	-	--	-
...CYMBELLACEAE										
....AMPHORA	46	2	--	-	--	-	--	-	--	-
....CYMBELLA	92	4	25	8	--	-	23	2	55	3
...FRAGILARIACEAE										
....ASTERIONELLA	210	8	8	3	--	-	--	-	--	-
....FRAGILARIA	1400#	58	--	-	--	-	190	14	--	-
....HANNAEA	--	-	--	-	43	6	--	-	14	1
....SYNEDRA	23	1	120#	42	--	-	--	-	14	1
...GOMPHONEMATACEAE										
....GOMPHONEMA	92	4	33	11	29	4	23	2	42	2
...NAVICULACEAE										
....NAVICULA	92	4	33	11	43	6	--	-	--	-
....NEIDIUM	--	-	--	-	14	2	--	-	--	-
...NITZSCHIACEAE										
....NITZSCHIA	92	4	50#	17	43	6	46	3	55	3
...SURIRELLACEAE										
....SURIRELLA	--	-	17	6	--	-	--	-	--	-
...TABELLARIACEAE										
....TABELLARIA	--	-	--	-	--	-	--	-	42	2
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..HORMOGONALES										
...OSCILLATORIACEAE										
....LYNGBYA	--	-	--	-	200#	28	--	-	--	-
....OSCILLATORIA	--	-	--	-	290#	40	510#	37	1500#	83
EUGLENOPHYTA (EUGLENOIDS)										
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	-	--	-	--	-	23	2	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

13342500 CLEARWATER RIVER AT SPALDING, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	LENGTH OF EXPO- SURE (DAYS)	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	PERI- PHYTON BIOMASS ASH WEIGHT G/SQ M	CHLOR-A PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2)
APR					
19...	28	14.2	12.2	3.59	.030

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM
OCT							
19...	0900	1	13	--	--	--	--
NOV							
16...	1100	6	94	--	--	--	--
DEC							
14...	0830	426	31100	36	48	62	76
FEB							
16...	0830	2	94	--	--	--	--
MAR							
22...	1430	11	751	--	--	--	--
APR							
28...	1015	67	5370	39	48	58	73
MAY							
03...	1630	10	842	--	--	--	--
15...	1814	19	1920	--	--	--	--
17...	1800	19	1940	--	--	--	--
JUN							
05...	1445	35	4710	--	--	--	--
06...	1310	46	6830	--	--	--	--
08...	1145	23	3440	--	--	--	--
12...	1530	11	1110	--	--	--	--
14...	1650	14	1510	--	--	--	--
19...	1315	5	436	--	--	--	--
JUL							
20...	1500	2	64	--	--	--	--
AUG							
23...	0930	68	731	55	70	85	97
SEP							
21...	1330	2	66	--	--	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
OCT						
19...	--	78	100	--	--	--
NOV						
16...	--	--	--	--	--	--
DEC						
14...	92	98	99	100	--	--
FEB						
16...	--	98	100	--	--	--
MAR						
22...	--	94	98	100	--	--
APR						
28...	88	96	98	100	--	--
MAY						
03...	--	80	87	96	100	--
15...	--	54	68	88	98	100
17...	--	67	76	87	96	100
JUN						
05...	--	43	54	75	95	100
06...	--	42	49	72	94	100
08...	--	--	--	--	--	--
12...	--	39	47	66	94	100
14...	--	29	34	52	86	100
19...	--	58	70	83	100	--
JUL						
20...	--	94	100	--	--	--
AUG						
23...	99	100	--	--	--	--
SEP						
21...	--	--	--	--	--	--

13342500 CLEARWATER RIVER AT SPALDING, ID--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	13.0	11.5	8.5	8.0	4.0	4.0	3.0	3.0	3.5	3.5	5.5	5.0
2	12.0	11.5	8.0	7.0	4.5	4.0	3.0	3.0	3.5	3.5	5.5	5.0
3	13.0	11.5	7.0	6.5	4.5	4.0	3.0	2.0	4.0	3.5	5.0	4.5
4	12.0	11.0	6.5	6.5	4.5	4.0	3.0	3.0	4.0	3.5	5.0	4.5
5	13.0	12.0	7.0	6.5	4.5	4.5	3.0	3.0	4.0	3.5	5.0	5.0
6	13.0	13.0	7.0	6.0	4.5	4.0	3.0	3.0	4.0	3.5	6.5	5.0
7	14.0	13.0	7.0	6.0	4.5	4.0	3.0	3.0	4.0	3.5	6.0	6.0
8	13.0	11.5	6.0	5.5	4.0	3.5	3.5	3.0	4.0	3.5	7.0	6.5
9	12.0	11.0	5.5	5.0	3.5	3.5	3.5	3.5	4.0	4.0	7.0	7.0
10	11.0	10.0	6.0	5.0	4.5	4.0	3.5	3.5	4.0	3.5	7.0	6.5
11	11.0	10.0	6.0	5.5	4.5	4.5	3.5	3.5	3.5	3.5	7.0	6.5
12	11.0	10.0	6.0	5.5	5.0	4.5	3.5	3.5	3.5	3.5	7.0	6.5
13	11.0	10.5	5.5	5.0	5.0	5.0	4.0	3.5	3.5	3.0	6.5	6.5
14	11.0	10.5	5.0	4.5	5.0	5.0	4.0	4.0	3.0	3.0	7.0	6.5
15	11.5	10.5	5.0	4.5	5.5	5.0	4.0	4.0	3.0	3.0	8.0	6.5
16	11.5	10.5	5.0	4.5	5.5	5.0	4.0	3.5	3.5	3.0	8.0	6.5
17	11.0	10.0	4.5	4.0	5.0	5.0	3.5	3.5	3.5	3.0	9.0	7.0
18	11.0	10.5	4.5	4.5	5.0	4.5	3.5	3.5	4.0	4.0	9.5	8.0
19	11.5	11.0	4.5	4.5	4.5	4.5	4.0	3.5	4.0	4.0	9.0	8.0
20	11.5	11.0	4.5	4.5	4.5	4.0	4.0	4.0	5.0	4.0	9.5	8.5
21	11.5	10.5	4.5	4.5	4.0	3.0	4.0	4.0	5.0	4.5	10.0	8.5
22	11.0	10.5	5.0	5.0	3.5	3.0	4.0	3.5	5.0	4.5	10.0	9.0
23	10.5	10.0	5.0	4.5	3.5	3.0	3.5	3.5	5.0	4.5	8.5	8.0
24	10.5	9.5	4.5	4.5	4.0	3.5	3.5	3.0	5.5	5.5	8.0	6.5
25	10.5	10.5	4.5	4.0	3.5	3.5	3.0	3.0	5.5	5.5	7.0	6.5
26	10.5	10.0	4.0	3.5	3.5	3.5	3.0	3.0	5.5	5.5	8.0	6.5
27	10.5	9.0	3.5	1.0	3.5	3.5	3.0	3.0	5.5	5.5	8.5	7.0
28	9.0	9.0	3.0	1.0	3.5	3.5	3.0	3.0	5.5	5.0	8.5	8.0
29	9.5	9.0	3.5	3.0	3.5	3.5	3.0	3.0	---	---	8.5	8.0
30	9.0	9.0	4.0	3.5	3.5	3.5	3.5	3.0	---	---	8.5	8.0
31	9.0	8.5	---	---	3.5	3.0	3.5	3.5	---	---	8.0	7.0
MONTH	14.0	8.5	8.5	1.0	5.5	3.0	4.0	2.0	5.5	3.0	10.0	4.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.0	8.0	9.0	9.0	10.5	9.5	16.0	15.0	21.5	19.5	16.5	14.5
2	8.0	7.0	---	---	11.0	10.5	16.0	15.0	21.5	19.5	16.5	14.5
3	7.0	6.5	8.5	8.0	11.0	11.0	15.5	15.0	21.5	19.0	20.0	16.5
4	7.0	6.5	8.0	7.0	11.5	11.5	15.0	15.0	21.5	19.5	20.0	17.0
5	6.5	6.5	7.0	6.5	11.5	10.5	15.0	15.0	21.5	20.0	19.0	14.5
6	6.5	6.0	8.0	6.0	10.5	10.0	15.5	15.0	21.5	21.0	15.0	14.5
7	6.5	6.5	9.0	7.0	11.0	10.0	16.0	15.5	23.5	21.5	14.5	13.5
8	7.0	6.0	10.0	9.0	11.0	10.0	17.0	16.0	22.0	20.5	14.5	13.0
9	9.0	6.5	9.5	9.0	11.0	10.5	19.0	16.5	23.5	20.5	14.0	13.0
10	9.0	7.0	10.0	9.0	10.5	9.5	18.0	17.0	23.0	20.0	15.5	14.0
11	9.0	8.0	9.5	9.0	10.0	9.5	18.0	16.0	21.5	20.0	15.0	13.5
12	8.5	7.0	9.0	7.0	10.0	10.0	18.5	16.0	20.5	19.5	13.5	13.0
13	8.5	6.5	8.0	8.0	10.0	10.0	18.5	16.0	19.5	19.0	13.0	12.0
14	9.0	7.0	8.5	8.0	11.5	10.0	19.5	16.5	20.0	18.0	13.5	12.0
15	9.0	7.0	8.5	8.5	12.0	11.5	20.0	17.0	19.5	18.0	13.5	13.0
16	8.0	7.0	8.5	6.5	12.0	11.5	18.5	18.0	18.5	16.5	13.0	12.0
17	8.0	6.5	7.0	6.5	12.0	12.0	19.5	17.0	17.0	16.0	12.0	11.5
18	8.5	6.5	8.0	6.5	14.0	13.0	19.0	16.5	17.0	14.5	11.5	11.0
19	9.0	7.0	9.0	8.0	14.5	14.0	19.0	16.5	16.5	15.5	12.0	11.0
20	9.0	8.5	10.0	9.0	14.5	14.5	19.5	18.0	17.0	16.5	12.0	11.0
21	9.0	8.0	9.5	9.0	14.5	14.5	20.0	16.5	19.0	16.5	12.0	11.5
22	8.5	7.0	9.0	8.5	15.0	14.5	20.5	16.5	16.5	15.5	12.0	11.5
23	---	---	8.5	6.5	15.0	15.0	21.0	19.5	18.0	14.5	13.0	11.5
24	---	---	6.5	6.0	15.5	15.0	21.5	19.5	17.0	15.0	13.0	12.0
25	---	---	7.0	6.0	15.5	14.5	21.0	17.0	16.0	15.0	13.5	12.0
26	---	---	8.0	7.0	14.5	13.5	20.5	19.5	16.0	14.5	14.5	13.5
27	---	---	9.5	8.5	14.5	13.5	22.0	20.5	19.0	15.5	14.5	14.0
28	9.0	8.5	10.0	9.5	15.0	14.5	20.5	18.0	18.0	15.5	14.0	13.5
29	9.0	8.5	10.0	9.5	15.0	15.0	21.0	18.0	16.0	14.5	14.0	13.0
30	---	---	9.5	9.0	15.5	15.0	21.5	20.0	15.5	14.5	13.5	13.0
31	---	---	9.5	9.5	---	---	21.5	21.0	16.0	14.5	---	---
MONTH	9.0	6.0	10.0	6.0	15.5	9.5	22.0	15.0	23.5	14.5	20.0	11.0
YEAR	23.5	1.0										

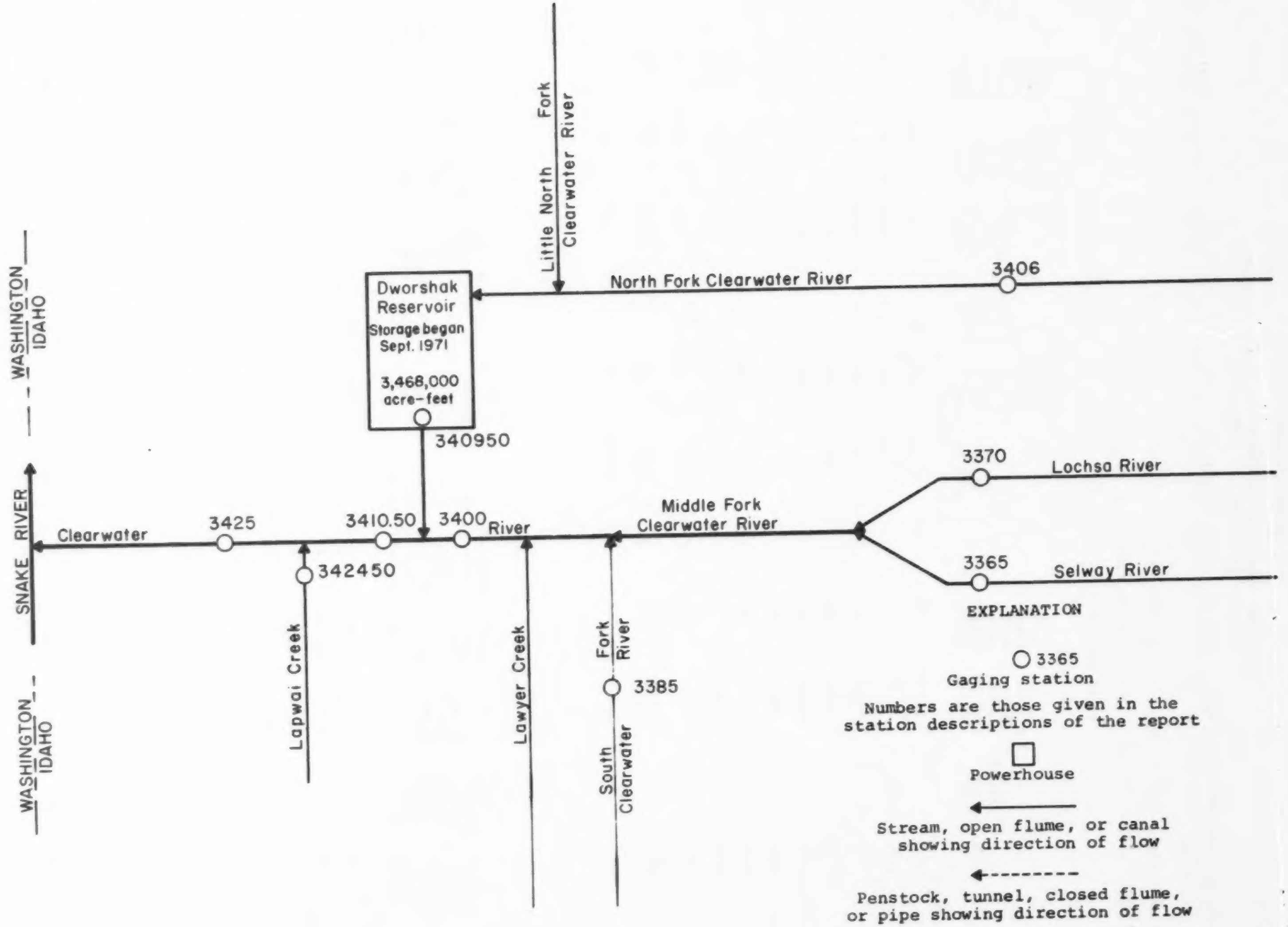
WASHINGTON
IDAHO
SNAKE RIVER
Clearwater
3425
3410.50
3400
River
342450
Lapwai Creek
Lawyer Creek
South Fork Clearwater River
3385
Middle Fork Clearwater River
Dworshak Reservoir
Storage began Sept. 1971
3,468,000 acre-feet
340950
Little North Fork Clearwater River
North Fork Clearwater River
3406
3370
Lochsa River
3365
Selway River
WASHINGTON
IDAHO
EXPLANATION
3365
Gaging station
Numbers are those given in the station descriptions of the report
Powerhouse
Stream, open flume, or canal showing direction of flow
Penstock, tunnel, closed flume, or pipe showing direction of flow

FIGURE 16.--Gaging stations in Clearwater River basin.

13343600 SNAKE RIVER BELOW LOWER GRANITE DAM, WA
(National Water Quality Surveillance System)

LOCATION.--Lat 46°40'04", long 117°26'38", in NE¼SE¼ sec.30, T.14 N., R.43 E., Garfield County, Hydrologic Unit 17060107, 1.0 mi (1.6 km) below Lower Granite Dam, 16 mi (25.7 km) northeast of Pomeroy, and at mile 106.5 (171.4 km).

DRAINAGE AREA.--103,500 mi² (268,100 km²), approximately.

PERIOD OF RECORD.--Water years 1975 to September 1978 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAMFLOW (CFS)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	CLOUD COVER (PERCENT)	TURBIDITY (JTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, CHEMICAL (LOW LEVEL) (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	HARDNESS (MG/L AS CACO3)
NOV , 1977 11...	1610	--	38200	350	7.9	10.6	100	1	10.0	22	2	120
DEC 15...	1400	78700	--	270	8.1	5.5	100	--	13.5	16	44	92
JAN , 1978 25...	1350	--	43500	235	7.7	4.8	100	9	10.4	52	--	87
FEB 22...	1150	--	41600	262	7.7	4.4	100	4	12.8	13	7	94
MAR 23...	1220	--	72400	210	7.4	7.6	100	6	11.8	10	--	70
APR 18...	1430	--	87400	151	8.0	10.2	75	4	12.9	7	43	60
MAY 11...	1230	--	106000	150	8.0	11.5	95	6	10.8	--	14	64
JUN 08...	1050	--	140000	69	7.8	13.1	0	6	11.7	9	53	27
JUL 13...	1245	--	70000	122	7.6	17.4	0	8	9.6	10	5	38
AUG 02...	1240	--	46400	140	7.6	21.3	0	--	7.5	9	<1	51
31...	1120	--	42400	194	7.7	19.4	100	2	7.6	8	<1	66
SEP 28...	1100	--	54200	247	8.2	15.8	5	1	8.9	12	2	85

DATE	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM TOTAL RECOVERABLE (MG/L AS CA)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, TOTAL RECOVERABLE (MG/L AS MG)	MAGNESIUM, SUSPENDED TOTAL (MG/L AS MG)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, TOTAL RECOVERABLE (MG/L AS NA)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, TOTAL RECOVERABLE (MG/L AS K)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)
NOV , 1977 11...	2	--	27	--	--	12	--	30	--	3.5	140	0
DEC 15...	2	22	22	9.4	--	9.1	21	21	3.0	2.8	110	0
JAN , 1978 25...	5	--	21	--	--	8.5	--	19	--	2.7	100	0
FEB 22...	0	--	24	--	--	8.3	--	19	--	2.7	120	0
MAR 23...	0	19	17	64	--	6.6	15	14	2.1	2.2	87	0
APR 18...	12	--	15	--	--	5.4	--	11	--	1.8	58	0
MAY 11...	1	--	17	--	--	5.2	--	11	--	2.1	77	0
JUN 08...	0	7.4	7.5	2.2	.2	2.0	4.6	4.4	1.0	.8	33	0
JUL 13...	1	--	9.4	--	--	3.4	--	7.6	--	1.5	45	0
AUG 02...	0	--	14	--	--	3.9	--	9.7	--	1.6	67	0
31...	0	--	17	--	--	5.8	--	17	--	2.0	83	0
SEP 28...	3	21	22	7.9	.5	7.4	19	19	2.6	2.6	100	0

13343600 SNAKE RIVER BELOW LOWER GRANITE DAM, WA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	ALKA-LINITY (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, SUSP. TOTAL, RESIDUE AT 110 DEG. C (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
NOV , 1977												
11...	110	2.8	41	15	21	224	219	23100	3	.50	.06	.17
DEC												
15...	90	1.4	29	16	22	177	176	37600	34	.65	.06	.39
JAN , 1978												
25...	82	3.2	27	10	23	165	161	19400	13	.94	.12	.19
FEB												
22...	98	3.8	24	12	24	161	173	18100	12	.85	.08	.16
MAR												
23...	71	5.5	17	7.9	19	121	127	23700	6	.59	.05	.28
APR												
18...	48	.9	25	5.9	18	116	111	27400	9	.30	.05	--
MAY												
11...	63	1.2	18	7.1	17	114	116	32600	13	.21	.10	.44
JUN												
08...	27	.8	6.8	2.3	11	38	51	14400	30	.04	.06	.21
JUL												
13...	37	1.8	11	3.6	14	75	73	14200	8	.09	.05	--
AUG												
02...	55	2.7	10	3.9	13	75	89	9400	5	--	--	--
31...	68	2.6	20	7.5	13	112	123	12800	2	.12	.06	.17
SEP												
28...	82	1.0	32	9.6	15	150	157	22000	0	.26	.04	.16

DATE	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)
NOV , 1977												
11...	.23	.73	.05	.03	.09	--	5	500	--	0	--	0
DEC												
15...	.45	1.1	.10	.04	.12	3	--	--	2	--	10	--
JAN , 1978												
25...	.31	1.2	.07	.04	.12	--	3	0	--	1	--	10
FEB												
22...	.24	1.1	.06	.05	.15	--	3	100	--	1	--	0
MAR												
23...	.33	.92	.06	.04	.12	2	--	--	1	-	10	--
APR												
18...	--	--	.05	.03	.09	--	4	300	--	0	--	0
MAY												
11...	.54	.75	.06	.05	.15	--	2	200	--	1	--	0
JUN												
08...	.27	.31	.04	.01	.03	2	--	--	3	--	0	--
JUL												
13...	--	--	.04	.01	.03	--	3	200	--	3	--	10
AUG												
02...	--	--	--	--	--	--	1	20	--	3	--	0
31...	.23	.35	.04	.02	.06	--	4	100	--	0	--	10
SEP												
28...	.20	.46	.04	.03	.09	3	--	--	0	--	0	--

DATE	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
NOV , 1977												
11...	--	1	--	--	3	.2	--	0	0	--	6	2.4
DEC												
15...	14	--	1400	26	--	.1	0	--	--	20	--	3.6
JAN , 1978												
25...	--	3	--	--	2	.0	--	0	0	--	10	2.9
FEB												
22...	--	6	--	--	3	.0	--	1	1	--	10	2.7
MAR												
23...	9	--	350	0	--	.0	0	--	--	10	--	3.2
APR												
18...	--	3	--	--	1	.0	--	0	0	--	10	2.8
MAY												
11...	--	6	--	--	7	.1	--	0	0	--	0	2.4
JUN												
08...	8	--	420	17	--	.1	0	--	--	20	--	2.9
JUL												
13...	--	6	--	--	3	.2	--	0	0	--	10	2.1
AUG												
02...	--	5	--	--	4	.0	--	0	0	--	10	2.3
31...	--	5	--	--	4	.0	--	0	0	--	0	2.9
..	19	--	160	32	--	.2	0	--	--	20	--	2.4

13345000 PALOUSE RIVER NEAR POTLATCH, ID

LOCATION.--Lat 45°54'55", long 116°57'00", in NE¼NW¼ sec.10, T.41 N., R.5 W., Latah County, Hydrologic Unit 17060108, on left bank 20 ft (6.1 m) downstream from bridge on U.S. Highway 95, 1.0 mi (1.6 km) downstream from Deep Creek, 2.0 mi (3.22 km) west of Potlatch, and at mile 132.2 (213 km).
DRAINAGE AREA.--317 mi² (821 sq² km).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1914 to September 1919, December 1966 to current year.
GAGE.--Water-stage recorder. Datum of gage is 2,455.11 ft (748.318 m) National Geodetic Vertical Datum of 1929 (levels by Idaho Department of Highways). October 1914 to September 1919 water-stage recorder at site 0.2 mi (0.31 km) upstream at different datum.
REMARKS.--Records good. Low and medium flows regulated at millpond in Potlatch prior to 1974. Small amounts of water diverted for sprinkle irrigation systems above gage.
AVERAGE DISCHARGE.--16 years (1915-19, 1968-78), 285 ft³/s (8.07 m³/s), 12.20 in/yr (310 mm/yr), 206,500 acre-ft/yr (255 hm³/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,100 ft³/s (286 m³/s) Jan. 16, 1974, gage height, 21.08 ft (6.425 m); minimum daily, 0.07 ft³/s (0.002 m³/s) Sept. 24, 1973.
EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 2,000 ft³/s (56.5 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 14	0800	*3090	87.5	*13.01	3.965	Feb. 8	0600	2230	63.2	11.45	3.490

Minimum discharge, 6.4 ft³/s (0.18 m³/s) Aug. 11-12, gage height, 4.16 ft (1.268 m).

Rating table (gage height, in feet, and discharge in cubic feet per second)
(Shifting-control method used Oct. 1 to Nov. 3, Nov. 26-30, Dec. 2 to June 8, Sept. 16-30; stage-discharge relation affected by ice Dec. 28-29)

4.1	6.0	5.0	78	8.5	980
4.2	9.4	5.5	147	10.5	1,880
4.4	20	6.0	240	13.0	3,280
4.6	36	7.0	482		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	34	115	38	125	491	751	416	103	31	10	17
2	17	32	636	45	165	382	943	349	93	32	10	20
3	15	37	661	62	395	302	888	305	84	32	9.6	17
4	12	30	392	83	582	336	559	270	77	38	8.8	15
5	9.6	25	257	114	652	369	508	242	71	74	8.4	16
6	9.2	22	149	280	1670	350	503	207	66	55	8.8	13
7	9.6	23	185	270	1610	324	488	181	58	41	8.0	17
8	11	26	157	441	1980	530	451	160	56	46	7.7	31
9	15	25	128	861	1330	1020	381	148	53	59	7.4	48
10	17	25	124	501	962	862	337	149	52	50	7.1	34
11	14	22	326	388	729	724	305	138	51	42	6.5	28
12	12	22	556	290	553	698	275	125	50	35	6.8	23
13	11	25	947	241	441	636	250	116	50	31	9.2	20
14	10	37	2620	311	377	583	230	139	49	28	19	19
15	11	66	1770	460	340	694	218	177	48	26	20	17
16	10	65	1120	550	308	641	245	297	45	25	20	15
17	10	49	676	613	257	410	200	445	44	27	27	15
18	9.6	33	485	623	255	646	207	335	41	25	22	15
19	9.6	23	351	581	251	508	180	275	39	26	18	15
20	10	19	236	602	251	553	188	231	37	22	17	15
21	11	17	202	584	264	508	183	206	36	19	17	14
22	10	13	217	500	262	601	161	221	34	14	22	14
23	10	13	167	440	275	661	159	168	33	17	39	14
24	12	15	143	363	322	705	152	170	37	16	35	14
25	12	73	114	291	392	605	140	191	39	14	26	13
26	15	226	112	270	519	591	130	163	42	13	20	12
27	20	204	77	224	601	543	228	153	39	12	17	11
28	22	132	60	203	545	518	802	148	36	12	15	11
29	20	148	66	201	---	504	887	132	32	12	13	11
30	30	162	74	149	---	490	518	121	32	12	12	13
31	48	---	65	127	---	481	---	111	---	11	14	---
TOTAL	454.6	1643	13236	10428	16413	16891	11189	6506	1524	898	481.7	535
MEAN	14.6	54.8	427	336	586	545	373	210	50.8	29.0	15.5	17.8
MAX	48	226	2620	861	1980	1020	943	445	103	74	39	48
MIN	9.2	13	60	38	125	302	130	111	32	11	6.5	11
CFSM	.05	.17	1.35	1.06	1.85	1.72	1.18	.66	.16	.09	.05	.06
IN.	.05	.19	1.55	1.22	1.93	1.98	1.31	.76	.18	.11	.06	.06
AC-FT	902	3260	26250	20680	32560	33500	22190	12900	3020	1780	955	1060

CAL YR 1977 TOTAL 27863.15 MEAN 76.3 MAX 2620 MIN .37 CFSM .24 IN 3.27 AC-FT 55270
WTR YR 1978 TOTAL 80198.70 MEAN 220 MAX 2620 MIN 6.5 CFSM .69 IN 9.41 AC-FT 159100

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13345000 PALOUSE RIVER NEAR POTLATCH, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973-76, October 1977 to September 1978.
REMARKS.--Miscellaneous chemical data published for water year 1977.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT 18...	1345	9.4	78	7.2	16.5	12.0	32	0	9.4	2.0
NOV 15...	1445	70	65	--	5.0	4.0	--	--	--	--
DEC 16...	0950	1150	46	--	4.0	2.5	--	--	--	--
JAN 24...	1415	335	50	--	2.0	.5	--	--	--	--
MAR 21...	1555	584	48	--	18.0	8.0	--	--	--	--
APR 18...	1355	202	54	--	14.5	8.0	--	--	--	--
MAY 23...	1515	184	52	--	15.0	12.0	--	--	--	--
JUN 21...	1110	36	54	--	29.5	21.0	--	--	--	--
JUL 19...	1400	24	65	7.7	24.5	24.0	27	0	7.7	1.8
AUG 22...	1430	20	62	7.5	13.0	16.0	27	0	7.6	1.9
SEP 19...	1500	16	82	--	16.0	13.5	--	--	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
OCT 18...	4.5	22	.3	1.8	47	0	39	3.1	1.5
NOV 15...	--	--	--	--	--	--	--	--	--
DEC 16...	--	--	--	--	--	--	--	--	--
JAN 24...	--	--	--	--	--	--	--	--	--
MAR 21...	--	--	--	--	--	--	--	--	--
APR 18...	--	--	--	--	--	--	--	--	--
MAY 23...	--	--	--	--	--	--	--	--	--
JUN 21...	--	--	--	--	--	--	--	--	--
JUL 19...	4.0	23	.3	1.5	38	0	31	3.7	.9
AUG 22...	4.2	24	.4	1.6	38	0	31	2.2	1.2
SEP 19...	--	--	--	--	--	--	--	--	--

13345000 PALOUSE RIVER NEAR POTLATCH, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 18...	.1	15	61	.08	1.55	.02	.12	--	--
NOV 15...	--	--	--	--	--	--	--	--	--
DEC 16...	--	--	--	--	--	--	--	--	--
JAN 24...	--	--	--	--	--	--	--	--	--
MAR 21...	--	--	--	--	--	--	--	--	--
APR 18...	--	--	--	--	--	--	--	10	5.5
MAY 23...	--	--	--	--	--	--	--	--	--
JUN 21...	--	--	--	--	--	--	--	--	--
JUL 19...	.1	16	55	.07	3.56	.04	.08	--	--
AUG 22...	.1	15	53	.07	2.86	.03	.08	--	--
SEP 19...	--	--	--	--	--	--	--	--	--

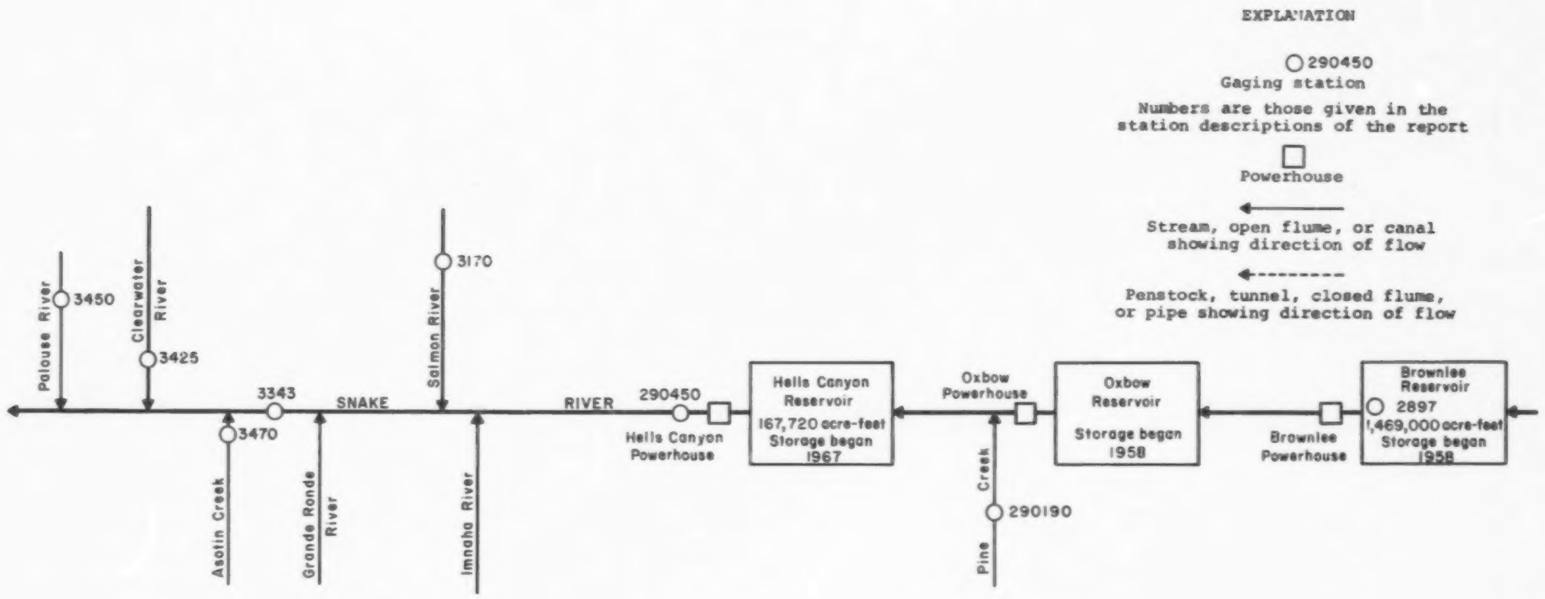
EXPLANATION
○ 290450
Gaging station
Numbers are those given in the station descriptions of the report
□
Powerhouse
Stream, open flume, or canal showing direction of flow
Penstock, tunnel, closed flume, or pipe showing direction of flow
Brownlee Reservoir
2897
1,469,000 acre-feet
Storage began 1958
Brownlee Powerhouse
Oxbow Reservoir
Storage began 1958
Oxbow Powerhouse
Pine Creek
290190
Hells Canyon Reservoir
167,720 acre-feet
Storage began 1967
Hells Canyon Powerhouse
290450
RIVER
Imnaha River
Salmon River
3170
SNAKE
Grande Ronde River
3343
Asotin Creek
3470
Clearwater River
3425
Palouse River
3450

FIGURE 17.--Gaging stations in Snake River basin between Brownlee Reservoir and the mouth of the Palouse River.

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in a low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both high and low flow are given in a third table.

Low-flow partial-record stations

Measurements of streamflow in the area covered by this report made at low-flow partial-record stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with simultaneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of the stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same, site.

Discharge measurements made at low-flow partial-record stations during water year 1978

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Kootenai River basin				
12306800	Round Prairie Creek near Eastport	Lat 48°57'53", long 116°11'52", in SW¼SE¼SE¼ sec.21, T.65 N., R.2 E., Boundary County, Kaniksu National Forest, 0.4 mi (0.6 km) downstream from Robinson Lake, 2.5 mi (4.1 km) south of Eastport, and at mile 2.5 (4.1 km).	-	1974-78	9- 8-78	3.07
12310800	Trail Creek at Naples	Lat 48°34'28", long 116°23'20", in SW¼SW¼ sec.6, T.60 N., R.1 E., Boundary County, at railroad culvert, 0.4 mi (0.6 km) upstream from mouth, and at Naples.	a16	1961-71b, 1973-78b	9-11-78	1.66
12321000	Smith Creek near Porthill	Lat 48°57'40", long 116°33'20", in SE¼NW¼NE¼ sec.26, T.65 N., R.2 W., Boundary County, Kaniksu National Forest, at forest bridge, 1.0 mi (1.6 km) south of Smith Creek ranger station, and 4.0 mi (6.4 km) southwest of Porthill.	a70	1928-61‡, 1973, 1975-78	9-11-78	65.3
		Pend Oreille River basin				
12392100	Trapper Creek near Clark Fork	Lat 48°15'57", long 116°07'00", in NE¼ sec.30, T.57 N., R.3 E., Bonner County, Kaniksu National Forest, at U.S. Forest Service road and 9.8 mi (15.7 km) north of Clark Fork.	1.12	1962-71b, 1974-78b	8-11-78	.01
12392155	Lightning Creek at Clark Fork	Lat 48°08'52", long 116°11'24", in NW¼SW¼NE¼ sec.3, T.55 N., R.2 E., Bonner County, 100 ft (305 m) downstream from N.P. Railroad bridge, 1,600 ft (488 m) upstream from mouth, and 0.5 mi (0.8 km) west of Clark Fork.	a100	1974-78	8-11-78	24.9
12392350	Grouse Creek near Colburn	Lat 48°20'36", long 116°26'10", in NE¼NW¼SW¼ sec.2, T.58 N., R.1 W., Bonner County, 2.0 mi (3.2 km) upstream from mouth and 4.0 mi (6.4 km) east of Colburn.	55.6	1958-65, 1974-76, 1978	8-11-78	6.25
12392450	Rapid Lightning Creek near Colburn	Lat 48°21'55", long 116°24'05", in SE¼SW¼NE¼ sec.24, T.58 N., R.1 W., Bonner County, 0.3 mi (0.5 km) upstream from mouth and 6.0 mi (9.6 km) southeast of Colburn.	-	1958-65, 1974-78	8-11-78	32.0
12392800	Hornby Creek near Dover	Lat 48°15'10", long 116°37'50", in SW¼SW¼ sec.30, T.57 N., R.2 W., Bonner County, at U.S. Highway 2 crossing and 1.2 mi (1.9 km) west of Dover.	a2.2	1961-71b, 1975-78	8-11-78	.98
12392854	Brickel Creek near Spirit Lake	Lat 47°56'10", long 116°56'59", in NW¼SE¼SW¼ sec.15, T.53 N., R.5 W., Kootenai County, 0.7 mi (1.1 km) upstream from mouth and 4.5 mi (7.2 km) southeast of Spirit Lake.	-	1973-76, 1978	8-30-78	3.13
12392892	Blanchard Creek near Blanchard	Lat 47°59'32", long 117°04'14", in SE¼NE¼SE¼ sec. 23, T.29 N., R.45 E. (Willamette meridian), Spokane County, WA, at confluence with North Fork, 1.3 mi (2.1 km) west of Idaho-Washington State line, and 5.8 mi (9.3 km) southwest of Blanchard.	-	1973-78	8-30-78	3.39
12392950	Indian Creek near Coolin	Lat 48°37'37", long 116°49'14", in NW¼SE¼NW¼ sec. 23, T.61 N., R.4 W., Bonner County, Kaniksu National Forest, 1.5 mi (2.4 km) upstream from mouth and 11 mi (18 km) north of Coolin.	20	1948,1973, 1975-78	8-29-78	18.7
12393600	Binarch Creek near Coolin	Lat 48°28'10", long 116°55'20", in NE¼ sec.13, T. 59 N., R.5 W., Bonner County, Kaniksu National Forest, at State Highway 57 crossing and 3 mi (4.8 km) west of Coolin.	10.7	1962-71b, 1973, 1975-78b	8-29-78	3.32

See footnotes at end of table, p. 278.

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Discharge measurements made at low-flow partial-record stations during water year 1978

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Spokane River basin				
12411200	Shoshone Creek near Prichard	Lat 47°43'00", long 115°53'20", near line between sec.32, T.51 N., R.4 E., and sec.5, T.50 N., R.4 E., Shoshone County, Coeur d'Alene National Forest, 1.1 mi (1.8 km) upstream from mouth and 4.0 mi (6.4 km) north of Prichard.	-	1911,1934, 1948,1973, 1975-78	8-16-78	93.1
12412600	North Fork Coeur d'Alene River near Enaville	Lat 47°36'39", long 116°14'22", in SW¼NW¼ sec.8, T.49 N., R.2 E., Shoshone County, Coeur d'Alene National Forest, 150 ft (46 m) upstream from mouth and 3 mi (4.8 km) north of Enaville.	-	1914,1934, 1939,1940, 1973, 1975-78	8-17-78	158
12413100	Boulder Creek at Mullan	Lat 47°28'10", long 115°47'44", in NE¼SE¼NE¼ sec. 34, T.48 N., R.5 E., Shoshone County, at alley crossing and 150 ft (46 m) upstream from U.S. Highway 10 crossing in Mullan.	3.13	1961-71b, 1973-78	8-15-78	2.28
12413120	Canyon Creek at Gem	Lat 47°30'30", long 115°51'56", in SW¼NE¼ sec.18, T.48 N., R.5 E., Shoshone County, 0.1 mi (0.2 km) upstream from Bell Gulch, 0.1 mi (0.2 km) northeast of Gem, and 3.6 mi (5.8 km) upstream from mouth.	18.1	1964,1973, 1975-78	8-15-78	19.0
12413170	McFarren Gulch near Osburn	Lat 47°29'20", long 116°00'56", in NW¼SW¼SE¼ sec. 24, T.48 N., R.3 E., Shoshone County, about 1.2 mi (1.9 km) south-southwest of Osburn.	1.25	1971-78	8-15-78	1.16
12413183	West Fork Big Creek near Kellogg	Lat 47°29'25", long 116°04'29", in SE¼NE¼SE¼ sec. 21, T.48 N., R.3 E., Shoshone County, about 3.5 mi (5.6 km) east of Kellogg.	5.60	1971-78	8-15-78	5.91
12413200	Montgomery Creek near Kellogg	Lat 47°33'10", long 116°04'17", in SE¼NE¼ sec.33, T.49 N., R.3 E., Shoshone County, Coeur d'Alene National Forest, at forest road crossing and 2.5 mi (4.0 km) northeast of Kellogg.	4.53	1962-71b, 1973-78	8-15-78	1.89
12413400	West Fork Pine Creek near Pinehurst	Lat 47°25'30", long 116°17'50", in NE¼NW¼ sec.14, T.47 N., R.1 E., Shoshone County, Bureau of Land Management land, on left bank 200 ft (61 m) south of BLM road, 1.0 mi (1.6 km) upstream from Middle Fork, 8.5 mi (13.6 km) southwest of Pinehurst, and at mile 9.5 (14.6 km).	10.8	1966-71‡, 1974-78	8-17-78	6.47
12413700	Latour Creek near Cataldo	Lat 47°28'10", long 116°26'15", in NE¼ sec.34, T. 48 N., R.1 W., Kootenai County, 5 ft (1.5 m) upstream from BLM road bridge, 0.4 mi (0.6 km) upstream from Baldy Creek, at mile 6.5 (10.5 km), and 7.8 mi (12.6 km) southwest of Cataldo.	24.8	1967-71‡, 1973, 1975-78	8-17-78	13.7
12413800	Fourth of July Creek near Cataldo	Lat 47°34'00", long 116°26'30", in SE¼ sec.22, T. 49 N., R.1 W., Kootenai County, at State Highway 3 crossing, 2.2 mi (3.5 km) upstream from mouth, 3 mi (4.8 km) northeast of Rose Lake, and 5.5 mi (8.8 km) northwest of Cataldo.	16.5	1959,1973 1975-78	8-17-78	4.31
12413850	Evans Creek near St. Maries	Lat 47°26'55", long 116°34'02", in SE¼SE¼ sec.3, T.47 N., R.2 W., Benewah County, 1.5 mi (2.4 km) upstream from mouth and Medicine Lake, 8 mi (13 km) southwest of Rose Lake, and 9 mi (14 km) north of St. Maries.	12.2	1959, 1975-78	8-14-78	2.64
12413900	St. Joe River above North Fork St. Joe River, near Avery	Lat 47°14'29", long 115°45'20", near line between sec.13, T.45 N., R.5 E., and sec.18, T.45 N., R.6 E., Shoshone County, St. Joe National Forest, 2.5 mi (4.0 km) southeast of Avery, 2.6 mi (4.2 km) upstream from North Fork St. Joe River, and at mile 68.4 (109.4).	472	1911-17‡, 1948, 1974-78	8-15-78	370
12413950	North Fork St. Joe River at mouth, near Avery	Lat 47°15'08", long 115°49'47", in NW¼NW¼NW¼ sec. 14, T.45 N., R.5 E., Shoshone County, St. Joe National Forest, 300 ft (91.5 m) upstream from county road bridge, 600 ft (183 m) upstream from mouth, and 0.2 mi (0.3 km) east of Avery.	111	1974-78	8-15-78	83.9
12414600	Bear Creek at Calder	Lat 47°17'00", long 116°11'30", in N½ sec.3, T.45 N., R.2 E., Shoshone County, St. Joe National Forest, at road crossing, 0.2 mi (0.3 km) west of Calder, and at mile 0.5 (0.9 km).	8.27	1959, 1974-78	8-15-78	1.94
12414650	Hugus Creek near Calder	Lat 47°17'00", long 116°15'40", in NW¼NW¼NW¼ sec. 6, T.45 N., R.2 E., Shoshone County, 50 ft (15 m) upstream from Avery Road culvert, 150 ft (45.7 m) upstream from mouth, and 4.0 mi (6.4 km) west of Calder.	13.1	1959, 1974-78	8-15-78	3.69
12414700	Trout Creek near Calder	Lat 47°17'45", long 116°15'10", in SW¼NW¼NE¼ sec. 31, T.46 N., R.2 E., Shoshone County, at road crossing, 0.2 mi (0.3 km) upstream from mouth, and 3.4 mi (5.4 km) northwest of Calder.	20.3	1959, 1974-78	8-15-78	9.24

Discharge measurements made at low-flow partial-record stations during water year 1978

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Measurements	
					Date	Discharge (ft³/s)
		Spokane River basin--Continued				
12414750	Falls Creek near St. Joe	Lat 47°19'10", long 116°17'30", in SE¼SE¼NE¼ sec. 31, T.46 N., R.1 E., Shoshone County, 60 ft (18.3 m) from mouth, 150 ft (45 m) downstream from county bridge, and 3.0 mi (4.8 km) east of St. Joe.	10.8	1959, 1974-76, 1978	8-15-78	11.7
12414800	Bond Creek at St. Joe	Lat 47°18'30", long 116°20'30", in N½ sec.28, T. 46 N., R.1 E., Benewah County, at road crossing, 0.5 mi (0.8 km) southeast of St. Joe, and 0.8 mi (1.3 km) upstream from mouth.	2.43	1959,1973, 1975-78	8-15-78	1.39
12414850	Street Creek near St. Maries	Lat 47°20'20", long 116°28'40", in SW¼NW¼NW¼ sec. 16, T.46 N., R.1 W., Benewah County, 20 ft (6.0 m) downstream from county highway culvert, 0.5 mi (0.9 km) upstream from mouth, and 6 mi (9.6 km) east of St. Maries.	7.92	1959, 1974-78	8-15-78	.35
12415050	Thorn Creek near St. Maries	Lat 47°17'00", long 116°31'00", in SW¼NE¼NW¼ sec. 6, T.45 N., R.1 W., Benewah County, 20 ft (6.0 m) downstream from Canyon Creek, 1.5 mi (2.5 km) upstream from mouth, and 3.5 mi (5.6 km) southeast of St. Maries.	31.6	1959, 1974-78	8-16-78	6.56
12415100	Cherry Creek near St. Maries	Lat 47°19'00", long 116°36'47", in SE¼SW¼SE¼ sec. 20, T.46 N., R.2 W., Benewah County, 80 ft (24.4 m) upstream from State Highway 5 crossing and 2.0 mi (3.2 km) west of St. Maries.	7.07	1961-71b, 1972, 1974-78	8-16-78	.29
12415150	Benewah Creek near St. Maries	Lat 47°20'10", long 116°40'50", in NE¼SE¼NW¼ sec. 14, T.46 N., R.3 W., Benewah County, 200 ft (61 m) downstream from State Highway 5 crossing near mouth, and 6 mi (9.6 km) west of St. Maries.	52.9	1959, 1974-78	8-16-78	2.77
12415200	Plummer Creek tributary at Plummer	Lat 47°20'20", long 116°53'14", in NW¼SE¼SW¼ sec. 7, T.46 N., R.4 W., Benewah County, at State Highway 5 crossing and 0.2 mi (0.3 km) north of Plummer.	2.10	1961-72b, 1974-78b	8-16-78	0
12415250	Plummer Creek near Plummer	Lat 47°21'34", long 116°46'53", in SE¼SW¼NW¼ sec.1, T.46 N., R.4 W., Benewah County, near mouth, 0.3 mi (0.5 km) upstream from bridge, and 5 mi (9.0 km) east of Plummer.	43.4	1959, 1974-78	8-16-78	.12
12415300	Mica Creek near Coeur d'Alene	Lat 47°36'00", long 116°53'00", in S½ sec.8, T.49 N., R.4 W., Kootenai County, at road crossing 1.0 mi (1.6 km) upstream from mouth and 7.0 mi (11.3 km) southwest of Coeur d'Alene.	23.1	1959,1973, 1975-78	8-16-78	1.98
12415350	Wolf Lodge Creek near Coeur d'Alene	Lat 47°38'30", long 116°37'00", in NE¼ sec.32, T.50 N., R.2 W., Kootenai County, at road crossing 0.8 mi (1.3 km) upstream from Cedar Creek and 8 mi (12.9 km) southeast of Coeur d'Alene.	39.4	1949,1973, 1975-78	8-17-78	23.9
12415400	Cougar Creek near Coeur d'Alene	Lat 47°39'20", long 116°50'30", in NE¼NW¼ sec.28, T.50 N., R.4 W., Kootenai County, at U.S. Highway 95 crossing and 3.2 mi (5.1 km) southwest of Coeur d'Alene.	14.8	1959,1973, 1975-78	8-16-78	1.69
12419100	Fish Creek near Rathdrum	Lat 47°53'08", long 116°57'06", in NW¼SE¼NW¼ sec. 3, T.52 N., R.5 W., Kootenai County, at road crossing 1.5 mi (2.4 km) upstream from Twin Lakes, and 6.0 mi (9.7 km) northwest of Rathdrum.	14.2	1959,1973, 1975-78	8-30-78	2.34
12422950	Hangman Creek near Tensed	Lat 47°11'40", long 117°01'42", in NE¼SW¼SE¼ sec. 36, T.45 N., R.6 W., Benewah County, 0.5 mi (0.8 km) east of Idaho-Washington State line, 2.8 mi (4.5 km) southeast of Tekoa, WA., and 6.2 mi (9.9 km) west of Tensed.	-	1974-78	8-16-78	.44
12423675	Rock Creek near Rockford, WA	Lat 47°26'09", long 117°02'44", in SE¼SE¼SE¼ sec. 36, T.23 N., R.45 E., Spokane County, 0.2 mi (0.3 km) west of Idaho-Washington State line, 1.6 mi (2.5 km) upstream from Murphy Creek, and 4.4 mi (7.0 km) east of Rockford, WA.	-	1974-78	8-16-78	0
		Little Canyon Creek basin				
13155200	Burns Gulch near Glenns Ferry	Lat 43°11'42", long 115°19'59", in NE¼NW¼ sec.1, T.3 S., R.9 E., Elmore County, at road crossing and 16 mi (25.7 km) north of Glenns Ferry.	.76	1961-71b, 1973-74, 1976-78	9-18-78	0
13144300	Little Canyon Creek at Stout crossing, near Glenns Ferry	Lat 43°09'14", long 115°18'22", in NE¼NW¼NE¼ sec. 19, T.3 S., R.10 E., Elmore County, on left bank, at county road crossing, and 13.8 mi (22.2 km) north of Glenns Ferry.	14.2	1961-65, 1966-71‡, 1973-78b	9-18-78	1.25

Discharge measurements made at low-flow partial-record stations during water year 1978

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Bruneau River basin				
13162300	Jarbidge River near Murphy Hot Springs	Lat 42°00'30", long 115°25'00", in sec.28, T.16 S., R.9 E., Owyhee County, at Buck Creek bridge and 3 mi (4.8 km) southwest of Murphy Hot Springs.	-	1961-66b, 1973, 1975-76, 1978	9-22-78	29.0
13162410	Buck Creek near Murphy Hot Springs	Lat 42°00'30", long 115°25'00", in SW¼ sec.28, T.16 S., R.9 E., Owyhee County, 400 ft (122 m) upstream from mouth and 3.2 mi (5.1 km) southwest of Murphy Hot Springs.	-	1961-62, 1973, 1975-78	9-22-78	3.85
13162500	East Fork Jarbidge River near Three Creek	Lat 42°02'00", long 115°22'20", in SE¼SE¼ sec.14, T.16 S., R.9 E., Owhyee County, on left bank 0.2 mi (0.3 km) downstream from Murphy Hot Springs, 2.0 mi (3.2 km) upstream from mouth, and 11 mi (17.6 km) southwest of Three Creek.	84.6	1928-33‡, 1953-71‡, 1974-78	9-22-78	33.4
		Sinker Creek basin				
13172290	Sinker Creek above Scotch Bob Creek, near Murphy	Lat 43°03'52", long 116°38'03", in NW¼SE¼NE¼ sec. 24, T.4 S., R.3 W., Owyhee County, at Silver City road crossing, 50 ft (15 m) upstream from Scotch Bob Creek, 6 mi (10 km) northeast of Silver City, and 11.2 mi (18.0 km) southwest of Murphy.	-	1975-78	9-19-78	.17
		Boise River basin				
13184200	Roaring River near Rocky Bar	Lat 43°42'20", long 115°27'50", in sec.2, T.4 N., R.8 E., Elmore County, 6 mi (10 km) upstream from mouth and 9 mi (14 km) northeast of Rocky Bar.	23.3	1958, 1963-71b, 1973-78b	9-11-78	23.6
13184800	Beaver Creek near Lowman	Lat 43°58'20", long 115°36'30", in SE¼ sec.3, T.7 N., R.7 E., Boise County, at State Highway 21 junction with road to Beaver Creek guard station and 7.5 mi (12.1 km) south of Lowman.	a9.3	1962-71b, 1975-78	9-28-78	3.04
13184955	Sheep Creek at mouth, near Twin Springs	Lat 43°41'45", long 115°39'38", in sec.7, T.4 N., R.7 E., Boise County, 200 ft (60 m) upstream from mouth and 2.5 mi (4.0 km) northeast of Twin Springs.	-	1975-78	9-26-78	17.6
13185500	Cottonwood Creek at Arrowrock Dam	Lat 43°37'56", long 115°49'25", in NW¼NE¼ sec.2, T.3 N., R.5 E., Boise County, at flow line of Arrowrock Reservoir, just downstream from unnamed tributary, 0.8 mi (1.1 km) downstream from Cottonwood ranger station, and 5.5 mi (8.8 km) northeast of Arrowrock Dam.	21.4	1912, 1914-18‡, 1929, 1939-41‡, 1955, 1976-78	9-26-78	2.81
13187000	Fall Creek near Anderson Ranch Dam	Lat 43°26'00", long 115°23'10", in SE¼ sec.9, T.1 N., R.9 E. (unsurveyed), Elmore County, 1.5 mi (2.4 km) upstream from Castle Creek, 2 mi (3.2 km) upstream from mouth, 5 mi (8 km) southwest of Pine, and 6 mi (10 km) northeast of Anderson Ranch Dam.	55.3	1942, 1945-56‡, 1975-78	9-25-78	19.7
13193500	Grouse Creek near Arrowrock Dam	Lat 43°34'40", long 115°54'33", in NW¼SE¼SW¼ sec. 19, T.3 N., R.5 E., Elmore County, 400 ft (120 m) above high flow line of Arrowrock Reservoir and 1.4 mi (2.3 km) southeast of Arrowrock Dam.	-	1939-42‡, 1976-78	9-26-78	.28
13196500	Bannock Creek near Idaho City	Lat 43°48'30", long 115°46'25", in NW¼NW¼ sec.5, T.5 N., R.6 E., Boise County, Boise National Forest, 0.8 mi (1.3 km) upstream from West Fork, at mile 2.0 (3.2 km), and 3.2 mi (5.1 km) southeast of Idaho City.	5.75	1939-41‡, 1950-71‡, 1975-78	9-26-78	.65
13199800	Grimes Creek near Idaho City	Lat 43°43'36", long 115°57'09", in SW¼SW¼NW¼ sec. 35, T.5 N., R.4 E., Boise County, 200 ft (61 m) upstream from mouth and 9 mi (14.5 km) southwest of Idaho City.	-	1973, 1975-78	9-26-78	29.1
13200500	Robie Creek near Arrowrock Dam	Lat 43°37'49", long 115°59'55", in NE¼ sec.5, T.3 N., R.4 E., Boise County, at mile 0.5 (0.8 km) and 5 mi (8 km) northwest of Arrowrock Dam.	15.8	1950-71‡, 1973, 1975-78	9-26-78	2.04
		Payette River basin				
13234300	Five Mile Creek near Lowman	Lat 44°06'20", long 115°27'30", in NE¼ sec.24, T.9 N., R.8 E., Boise County, at State Highway 21 crossing and 8.5 mi (13.7 km) east of Lowman.	a7.8	1962-71b, 1973-78b	9-12-78	9.56
13234500	Clear Creek at Lowman	Lat 44°04'55", long 115°36'40", in SW¼SE¼ sec.27, T.9 N., R.7 E., Boise County, Boise National Forest, at State Highway 21 bridge in Lowman and 550 ft (168 m) upstream from mouth.	59.6	1921-22, 1925, 1941-45‡, 1973, 1975-78	9-28-78	38.4

Discharge measurements made at low-flow partial-record stations during water year 1978

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Measurements	
					Date	Discharge (ft³/s)
		Payette River basin--Continued				
13235100	Rock Creek near Lowman	Lat 44°04'50", long 115°37'30", in NE¼ sec.33, T.9 N., R.7 E., Boise County, Boise National Forest, at road bridge and 0.5 mi (0.8 km) west of Lowman.	14.6	1961-71b, 1973, 1975-78	9-28-78	7.38
13237300	Danskin Creek near Grimes Pass	Lat 44°03'36", long 115°49'06", in NW¼ sec.1, T.8 N., R.5 E., Boise County, Boise National Forest, at Banks-Lowman road crossing and 2 mi (3.2 km) northeast of Grimes Pass.	10.1	1961-71b, 1973-78	9-27-78	2.37
13237600	Cabin Creek near Smiths Ferry	Lat 44°20'53", long 115°47'21", in NE¼SE¼NW¼ sec. 30, T.12 N., R.6 E., Valley County, Boise National Forest, 0.2 mi (0.3 km) upstream from mouth, 1.2 mi (1.9 km) downstream from Silver Creek guard station, and 13 mi (20.9 km) east of Smiths Ferry.	.42	1960-67‡, 1973-78	9-27-78	.11
13238300	Deep Creek near McCall	Lat 45°06'00", long 116°02'18", in NW¼NE¼SW¼ sec.1, T.20 N., R.3 E., Valley County, Payette National Forest, at forest road crossing and 13 mi (21 km) north of McCall.	b.40	1961-71b, 1973, 1975-78	9-25-78	c.2
13245400	Tripod Creek at Smiths Ferry	Lat 44°17'55", long 116°05'17", in SW¼ sec.10, T. 11 N., R.3 E., Valley County, at State Highway 15 at Smiths Ferry.	8.63	1962-71b, 1973, 1976-78b	9-25-78	.54
13247000	Porter Creek near Gardena	Lat 43°56'00", long 116°11'00", in SE¼NW¼NE¼ sec. 14, T.7 N., R.2 E., Boise County, 0.6 mi (1.0 km) upstream from mouth and 2 mi (3.2 km) south of Gardena.	21.2	1938-45‡, 1974-78	9-27-78	2.20
13250650	Fourmile Creek near Emmett	Lat 44°04'24", long 116°29'13", in SW¼NW¼ sec.32, T.9 N., R.1 W., Payette County, 300 ft (91 m) upstream from mouth and 14 mi (23 km) north of Emmett.	a6.5	1962-71b, 1973, 1975-76, 1978	9-21-78	.12
13250700	Langley Gulch near New Plymouth	Lat 43°53'59", long 116°48'30", in SE¼NW¼SW¼ sec. 34, T.7 N., R.4 W., Payette County, at U.S. Highway I-80N and 5 mi (8 km) south of New Plymouth.	3.88	1961-71b, 1973, 1975-78	9-28-78	0
		Weiser River basin				
13253500	Weiser River at Starkey	Lat 44°51'00", long 116°26'40", in NE¼SW¼ sec.34, T.18 N., R.1 W., Adams County, 200 ft (61 m) upstream from Warm Springs Creek, 8.5 mi (13.7 km) north of Council, and at mile 80.0 (128.7 km).	106	1920,1922, 1939-49‡, 1955, 1973-78	9-29-78	17.2
13260000	Pine Creek near Cambridge	Lat 44°35'23", long 116°44'12", in NE¼SE¼SE¼ sec. 31, T.15 N., R.3 W., Washington County, 300 ft (91.5 m) upstream from West Fork Pine Creek, and 3.4 mi (5.4 km) northwest of Cambridge.	54	1938-62‡, 1964-65, 1974-78	9-29-78	7.99
13261000	Little Weiser River near Indian Valley	Lat 44°29'22", long 116°23'24", in NW¼SW¼ sec.6, T.13 N., R.1 E., Adams County, at county road crossing, 2,500 ft (760 m) upstream from old gage site, 5.2 mi (8.4 km) southeast of Indian Valley, and at mile 21.5 (34.6 km).	81.9	1920-21‡, 1923-27‡, 1938-71‡, 1973, 1976-78	9-28-78	16.5
13261880	Keithly Creek near Midvale	Lat 44°31'02", long 116°49'53", in SE¼NW¼SW¼ sec. 28, T.14 N., R.4 W., Washington County, 5.5 mi (8.8 km) northwest of Midvale and 8.5 mi (13.7 km) southwest of Cambridge.	-	1973-74, 1976-78	9-28-78	5.71
13263700	Crane Creek above Crane Creek Reservoir, near Midvale	Lat 44°24'16", long 116°31'30", in NW¼SW¼ sec.1, T.12 N., R.2 W., Washington County, 0.1 mi (0.2 km) downstream from county road bridge, 2 mi (3.2 km) northwest of Crane Creek Reservoir, and 11 mi (17.7 km) southwest of Midvale.	a120	1955, 1973-78	9-28-78	.20
13268500	Monroe Creek above Sheep Creek, near Weiser	Lat 44°19'50", long 116°55'50", in NE¼SW¼ sec.34, T.12 N., R.5 W., Washington County, at farm road bridge, 200 ft (61.0 m) west of U.S. Highway 95, and 6 mi (9.7 km) north of Weiser.	a32	1938, 1940-44, 1945-49‡, 1955,1970, 1973-78	9-28-78	.33
		Brownlee Creek basin				
13289600	East Brownlee Creek near Brownlee ranger station	Lat 44°44'08", long 116°50'15", in SE¼NE¼SE¼ sec. 8, T.16 N., R.4 W., Washington County, Payette National Forest, at State Highway 71 crossing and 0.2 mi (0.3 km) west of Brownlee ranger station.	7.97	1962-71b, 1974-78	9-26-78	2.80
		Wildhorse River basin				
13289800	Bear Creek near Bear	Lat 44°59'40", long 116°41'00", in NW¼SE¼SE¼ sec. 10, T.19 N., R.3 W., Adams County, Payette National Forest, at forest road crossing and 2.2 mi (3.5 km) south of Bear.	-	1913, 1962-64, 1974-78	9-29-78	5.18

Discharge measurements made at low-flow partial-record stations during water year 1978

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Measurements	
					Date	Discharge (ft³/s)
		Salmon River basin				
13292200	Salmon River at head, near Obsidian	Lat 43°53'03", long 114°45'47", in NE¼NE¼NE¼ sec. 1, T.6 N., R.13 E. (unsurveyed), Blaine County, Sawtooth National Forest, at U.S. Highway 93 crossing, 0.3 mi (4.8 km) upstream from Frenchman Creek, and 14 mi (22.5 km) south of Obsidian.	17.5	1971-73, 1975-78	9-14-78	9.12
13292400	Beaver Creek near Stanley	Lat 43°55'10", long 114°48'48", in NE¼NE¼NE¼ sec. 21, T.7 N., R.14 E., Blaine County, at U.S. Highway 93 crossing, about 0.3 mi (4.8 km) north of Beaver Creek store, and 23.5 mi (37.8 km) southeast of Stanley.	15.0	1962-71b, 1972-73, 1975-78	9-14-78	4.95
13292500	Salmon River near Obsidian	Lat 43°57'57", long 114°48'01", in SW¼NE¼ sec.3, T.7 N., R.14 E., Custer County, 1 mi (1.6 km) upstream from Lost Creek and 2.5 mi (4.0 km) southeast of Obsidian.	94.7	1940-53‡, 1973, 1975-78	9-14-78	59.7
13293000	Alturas Lake Creek near Obsidian	Lat 43°56'34", long 114°49'58", in SW¼SW¼ sec.9, T.7 N., R.14 E., Blaine County, Sawtooth National Forest, 1 mi (1.6 km) downstream from mouth of Perkins Lake, 1.5 mi (2.4 km) downstream from outlet of Alturas Lake, and 4 mi (6.4 km) south of Obsidian.	35.7	1940-53‡, 1973, 1975-78	9-25-78	27.6
13293800	Salmon River above Redfish Creek, near Stanley	Lat 44°09'50", long 114°53'10", in NE¼ sec.25, T.10 N., R.13 E., Custer County, Sawtooth National Forest, at U.S. Highway 93 crossing and 4.5 mi (7.2 km) southeast of Stanley.	-	1957,1958 1973, 1975-78	9-11-78	399
13293900	Redfish Lake Creek below Redfish Lake, near Stanley	Lat 44°09'20", long 114°54'40", in NE¼SW¼NW¼ sec. 35, T.10 N., R.13 E., Custer County, Sawtooth National Forest, at bridge 1.1 mi (1.8 km) downstream from store at Redfish Lake and 4.5 mi (7.2 km) south of Stanley.	-	1957-59, 1973, 1975-78	9-25-78	67.0
13295000	Valley Creek at Stanley	Lat 44°13'21", long 114°55'49", in SE¼NW¼SW¼ sec. 3, T.10 N., R.13 E., Custer County, at mile 0.2 (0.3 km), 0.5 mi (0.8 km) northeast of Stanley, and 0.8 mi (1.3 km) southwest of Lower Stanley.	147	1910‡, 1911-13‡, 1921-73‡, 1975-78	9-25-78	115
13295500	Salmon River below Valley Creek, near Stanley	Lat 44°14'00", long 114°35'01", in SE¼SE¼SE¼ sec. 34, T.11 N., R.13 E., Custer County, Challis National Forest, 0.8 mi (1.2 km) downstream from Valley Creek, and 1.2 mi (2.0 km) northeast of Upper Stanley.	501	1925-61‡, 1973, 1975-78	9-26-78	520
13296000	Yankee Fork Salmon River near Clayton	Lat 44°17'15", long 114°43'11", in NE¼SW¼ sec.17, T.11 N., R.15 E. (unsurveyed), Custer County, Challis National Forest, at Sunbeam-Custer bridge, 1.8 mi (2.8 km) north of Sunbeam, 1.9 mi (3.1 km) upstream from mouth, and 12 mi (19.3 km) northeast of Stanley.	195	1921-49‡, 1971-73, 1975-78	9-11-78	108
13297000	Warm Springs Creek at Robinson Bar, near Clayton	Lat 44°14'50", long 114°40'11", in SW¼ sec.27, T. 11 N., R.15 E. (unsurveyed), Custer County, Challis National Forest, 160 ft (25.7 m) upstream from Robinson Bar bridge, 0.6 mi (100 km) upstream from mouth, and 13.7 mi (22.0 km) west of Clayton.	79	1921-23‡, 1971-73, 1975-78	9-26-78	78.2
13297100	Peach Creek near Clayton	Lat 44°15'50", long 114°28'50", in SE¼SW¼ sec.24, T.11 N., R.15 E., Custer County, Challis National Forest, 12.5 mi (20.1 km) west of Clayton.	7.92	1962-71b, 1972-73, 1975-78	9-26-78	4.35
13297300	Holman Creek near Clayton	Lat 44°14'52", long 114°21'43", in SE¼SW¼SW¼ sec. 25, T.11 N., R.16 E., Custer County, Challis National Forest, in Holman Creek Campground and 6.5 mi (10.5 km) west of Clayton.	6.10	1962-71b, 1972-73, 1975-78	9-26-78	.68
13297500	Big Boulder Creek near Clayton	Lat 44°05'58", long 114°26'24", in SW¼NW¼NE¼ sec. 15, T.9 N., R.17 E., Custer County, at bridge crossing, 0.4 mi (0.6 km) upstream from mouth, and 10 mi (16.1 km) southwest of Clayton.	24.7	1926-30‡, 1971-73, 1976-78	9-13-78	26.5
13298300	Malm Gulch near Clayton	Lat 44°21'18", long 114°15'45", in NE¼NE¼SW¼ sec. 19, T.12 N., R.19 E., Custer County, at U.S. Highway 95 and 9.5 mi (15.3 km) northeast of Clayton.	.38	1962-71b, 1972-73, 1976-78	9-14-78	0
13298400	Bayhorse Creek near Challis	Lat 44°22'53", long 114°15'52", in SE¼SW¼NE¼ sec.7, T.12 N., R.19 E., Custer County, 0.5 mi (0.8 km) upstream from mouth and 9 mi (14.5 km) south of Challis.	-	1973, 1975-78	9-26-78	7.94

Discharge measurements made at low-flow partial-record stations during water year 1978

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Salmon River basin--Continued				
13301500	Big Creek near Patterson	Lat 44°26'38", long 113°36'25", in SE¼SE¼NE¼ sec. 21, T.13 N., R.24 E., Lemhi County, at private road bridge above diversions, 0.3 mi (4.8 km) upstream from old staff gage site, 0.4 mi (6.4 km) downstream from confluence of North and South Forks, and 7 mi (11.3 km) southeast of Patterson.	54.8	1910-13‡, 1938, 1971-73, 1975-78	9-13-78	54.7
13301700	Morse Creek above diversions, near May	Lat 44°36'55", long 113°48'25", in SW¼ sec.24, T.15 N., R.22 E., Custer County, 0.6 mi (1.0 km) upstream from mouth of canyon and 5.2 mi (8.4 km) east of May.	18.0	1962-71b, 1973-78b	9-13-78	12.3
13302180	Lake Creek above Williams Lake, near Salmon	Lat 45°01'00", long 113°59'38", in NW¼SW¼ sec.33, T.20 N., R.21 E., Lemhi County, Salmon National Forest, 0.2 mi (0.4 km) upstream from Williams Lake, 3.2 mi (5.1 km) upstream from mouth, and 12 mi (19.3 km) southwest of Salmon.	-	1973, 1975-78	9-29-78	4.32
13303000	Texas Creek near Leadore	Lat 44°35'10", long 113°19'45", in NW¼SW¼ sec.35, T.15 N., R.26 E., Lemhi County, 50 ft (15 m) downstream from Nez Perce Creek, 0.5 mi (0.8 km) upstream from county road bridge, and 6.5 mi (10.5 km) south of Leadore.	71.4	1938-39‡, 1955-63‡, 1965,1973, 1975-78	9-28-78	23.6
13304875	Hayden Creek below Bear Valley Creek, near Lemhi	Lat 44°46'43", long 113°42'21", in SE¼NW¼NE¼ sec. 27, T.17 N., R.23 E., Lemhi County, Salmon National Forest, 0.2 mi (0.3 km) upstream from forest boundary, 0.4 mi (0.6 km) downstream from Bear Valley Creek, and 6.7 mi (10.8 km) southwest of Lemhi.	-	1973, 1975-78	9-28-78	89.3
13305700	Dahlonega Creek at Gibbonsville	Lat 45°32'50", long 113°55'40", in NW¼ sec.36, T. 26 N., R.21 E., Lemhi County, Salmon National Forest, at U.S. Highway 93 and 0.2 mi (0.3 km) southwest of Gibbonsville.	a32	1962-71bc 1973, 1975-78	9-28-78	11.8
13305800	Hughes Creek near North Fork	Lat 45°31'12", long 114°01'59", in SW¼NE¼SW¼ sec. 6, T.25 N., R.21 E., Lemhi County, just upstream from West Fork Hughes and Allen Creeks and 8.0 mi (13 km) northwest of North Fork.	15.7	1962-78b	9-28-78	6.72
13306000	North Fork Salmon River at North Fork	Lat 45°24'26", long 113°59'37", in NW¼SW¼SW¼ sec. 16, T.24 N., R.21 E., Lemhi County, Salmon National Forest, at U.S. Highway 93, 0.1 mi (0.2 km) upstream from mouth, and at North Fork.	214	1928, 1929-39‡, 1973, 1975-78	9-27-78	84.2
13306320	Panther Creek at Copper Creek ranger station, near Cobalt	Lat 45°04'07", long 114°16'11", in NE¼NE¼NW¼ sec. 18, T.20 N., R.19 E. (unsurveyed), Lemhi County, Salmon National Forest, at Copper Creek ranger station, 60 ft (18.3 m) downstream from road bridge, 600 ft (183 m) upstream from Copper Creek, about 0.8 mi (1.2 km) upstream from Blackbird Creek, about 2.5 mi (4.0 km) southwest of Blackbird Townsite, and 20 mi (32.2 km) southwest of Salmon.	-	1971,1973, 1975-78	9-27-78	59.9
13306330	Blackbird Creek below Mill, near Blackbird Townsite	Lat 45°06'59", long 114°20'30", in NE¼SE¼SE¼ sec.28, T.21 N., R.18 E. (unsurveyed), Lemhi County, Salmon National Forest, below Meadow Creek, 5.6 mi (9.0 km) northwest of Blackbird Townsite, and about 22 mi (35.4 km) west of Salmon.	-	1971,1973, 1975-78	9-27-78	1.16
13306440	Panther Creek below Big Deer Creek, near Blackbird Townsite	Lat 45°10'38", long 114°18'53", in SW¼NE¼SW¼ sec.2, T.21 N., R.18 E. (unsurveyed), Lemhi County, Salmon National Forest, just below Big Deer Creek, 7.0 mi (11.3 km) northwest of Blackbird Townsite, and 20.2 mi (32.5 km) west of Salmon.	-	1971,1973, 1975-78	9-27-78	112
13307050	Owl Creek near Shoup	Lat 45°19'07", long 114°26'52", in SE¼NW¼ sec.14, T.23 N., R.17 E. (unsurveyed), Lemhi County, Salmon National Forest, at forest road and 9.3 mi (15.0 km) southwest of Shoup.	-	1973, 1975-78	9-14-78	21.0
13308500	Middle Fork Salmon River near Cape Horn	Lat 44°24'30", long 115°10'20", in NW¼ sec.3, T. 12 N., R.11 E., Custer County, Challis National Forest, 0.2 mi (0.32 km) downstream from Little Beaver Creek, 0.5 mi (0.8 km) downstream from confluence of Marsh and Beaver Creeks, 2 mi (3.2 km) northwest of Cape Horn, and at mile 110.3 (117.5 km).	138	1928-72‡, 1973, 1975-78	9-27-78	111
13309000	Bear Valley Creek near Cape Horn	Lat 44°25'44", long 115°17'22", in sec.29, T.13 N., R.10 E., Valley County, Boise National Forest, 250 ft (76.2 m) downstream from Fir Creek, 3 mi (4.8 km) upstream from mouth, and 7 mi (11.3 km) northwest of Cape Horn.	a180	1921-61‡, 1973, 1975-78	9-27-78	131

Discharge measurements made at low-flow partial-record stations during water year 1978

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Measurements	
					Date	Discharge (ft³/s)
		Salmon River basin--Continued				
13310500	South Fork Salmon River near Knox	Lat 44°39'15", long 115°42'05", in NW¼ sec.11, T.15 N., R.6 E., Valley County, Boise National Forest, 800 ft (244 m) downstream from Curtis Creek, 1 mi (1.6 km) upstream from Warm Lake Creek, 1.5 mi (2.4 km) southwest of Knox, and 21 mi (33.8 km) northeast of Cascade.	a92	1928-61‡, 1973-78	9-27-78	53.1
13311500	East Fork of South Fork Salmon River near Stibnite	Lat 44°56'11", long 115°20'10", in NW¼SE¼SE¼ sec. 34, T.19 N., R.9 E., Valley County, on boundary between Boise and Payette National Forests, 75 ft (22.9 m) downstream from Sugar Creek, 3 mi (4.8 km) north of Stibnite, and 25.6 mi (41.2 km) upstream from mouth.	42.5	1928-41‡, 1973, 1975-78	9-26-78	29.6
13312500	Johnson Creek near Landmark ranger station	Lat 44°40'56", long 115°32'24", in SW¼NW¼ sec.31, T.16 N., R.8 E., Valley County, Boise National Forest, at Buck Mountain Campground, 0.3 mi (4.8 km) upstream from Lunch Creek, 1.0 mi (1.6 km) downstream from Bobcat Creek, 1.5 mi (2.4 km) north of Landmark ranger station, and 20 mi (32.2 km) south of Yellow Pine.	54.7	1942-49‡, 1973-78	9-27-78	21.8
13313500	Secesh River near Burgdorf	Lat 45°13'59", long 115°48'36", in SE¼SE¼NW¼ sec. 23, T.22 N., R.5 E., Idaho County, Payette National Forest, at Warren Wagon Road, 0.9 mi (1.4 km) upstream from Long Gulch, and 5.8 mi (9.3 km) southeast of Burgdorf.	104	1929, 1943-52‡, 1973, 1975-78	9-25-78	77.2
13314000	South Fork Salmon River near Warren	Lat 45°10'30", long 115°34'45", in SE¼SE¼NE¼ sec. 10, T.21 N., R.7 E., Valley County, Payette National Forest, at forest road bridge at South Fork guard station, 1.3 mi (2.1 km) upstream from Pony Creek, 1.5 mi (2.4 km) downstream from old gage site, 7.8 mi (12.6 km) southeast of Warren, and at mile 19.8 (31.9 km).	a1,160	1931-43‡, 1948, 1973-78	9-26-78	727
13314500	Warren Creek near Warren	Lat 45°16'35", long 115°41'46", in SE¼SE¼NE¼ sec. 3, T.22 N., R.6 E., Idaho County, Payette National Forest, 500 ft (152 m) downstream from Warren Wagon Road bridge, 0.1 mi (0.2 km) downstream from Steamboat Creek, and 1.3 mi (20.9 km) northwest of Warren.	a37	1943-50‡, 1973-78	9-25-78	16.4
13315500	Mud Creek near Tamarack	Lat 44°59'48", long 116°20'54", in NW¼SW¼ sec.9, T.19 N., R.1 E., Adams County, 0.5 mi (0.8 km) upstream from Little Mud Creek and 3.2 mi (5.1 km) northeast of Tamarack.	15.1	1937-38‡, 1939-43‡, 1945-59‡, 1961-71b, 1973-78	9-29-78	1.80
13316000	Boulder Creek near Tamarack	Lat 45°05'04", long 116°26'54", in NE¼NE¼SW¼ sec. 10, T.20 N., R.1 W., Adams County, Payette National Forest, 125 ft (38.1 km) upstream from Yantis ditch and 8.0 mi (12.9 km) northwest of Tamarack.	a6.5	1937, 1938-45‡, 1973-78	9-29-78	2.10
13316300	Indian Creek near Pollock	Lat 45°16'50", long 116°21'12", in SE¼NE¼NE¼ sec. 5, T.22 N., R.1 E., Idaho County, Nez Perce National Forest, at forest road crossing and 2.5 mi (4.0 km) south of Pollock.	2.66	1961-71b, 1973-78	9-27-78	.66
13316390	Rapid River above fish hatchery, near Riggins	Lat 45°21'05", long 116°23'52", in SE¼NW¼NE¼ sec. 12, T.23 N., R.1 W., Idaho County, Nez Perce National Forest, 500 ft (168 m) above diversion for Rapid River Fish Hatchery, 0.5 mi (0.8 km) downstream from Thorn Gulch, 0.5 mi (0.8 km) upstream from Shingle Creek, 2.8 mi (4.5 km) upstream from mouth, and 6.0 mi (9.7 km) southwest of Riggins.	-	1973-78	9-27-78	101
13316600	Slate Creek at mouth, at Slate Creek	Lat 45°38'25", long 116°16'56", in NE¼NW¼NW¼ sec. 36, T.27 N., R.1 E., Idaho County, 200 ft (61 m) upstream from U.S. Highway 95 bridge, 300 ft (91 m) upstream from mouth, 0.2 mi (0.3 km) northwest of Slate Creek, and 8.7 mi (14.0 km) south of White Bird.	127	1948, 1973-78	9-28-78	67.9
13317045	White Bird Creek near White Bird	Lat 45°47'23", long 116°15'17", in NE¼SE¼SW¼ sec. 6, T.28 N., R.2 E., Idaho County, at private road crossing, 0.2 mi (0.3 km) upstream from Magpie Gulch, and 3.0 mi (4.8 km) northeast of White Bird.	-	1973-78	9-28-78	21.0
13317200	Johns Creek near Grangeville	Lat 45°56'16", long 116°12'03", in SW¼NW¼SW¼ sec. 15, T.30 N., R.2 E., Clearwater County, at farm road on section line, 0.8 mi (1.2 km) north of southwest corner sec.15, and 4.0 mi (6.0 km) west of Grangeville.	6.67	1961-72b, 1974-78	9-16-78	.81

Discharge measurements made at low-flow partial-record stations during water year 1978

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Measurements	
					Date	Discharge (ft³/s)
		Clearwater River basin				
1336000	Selway River above Meadow Creek, near Lowell	Lat 46°02'46", long 115°17'27", in sec.11, T.31 N., R.9 E. (unsurveyed), Idaho County, Nez Perce National Forest, 0.2 mi (0.3 km) upstream from Selway Falls, 12.2 mi (19.6 km) upstream from station 13336500, and 15.5 mi (24.9 km) southeast of Lowell.	a1,550	1944-49‡, 1973-74, 1978	9- 9-78	883
13336100	Meadow Creek near Lowell	Lat 46°01'51", long 115°17'23", in NE¼ sec.14, T.31 N., R.9 E. (unsurveyed), Idaho County, Nez Perce National Forest, attached to bridge pier, at mile 1.1 (1.8 km), and 16.5 mi (26.5 km) southeast of Lowell.	241	1910,1924, 1963-70‡, 1973-76, 1978	9-10-78	137
13336600	Swiftwater Creek near Lowell	Lat 46°06'55", long 115°34'21", in SE¼SE¼NE¼ sec. 16, T.32 N., R.7 E., Idaho County, Nez Perce National Forest, at mouth, at forest road, and 2.5 mi (4.0 km) southeast of Lowell.	6.19	1961-71b, 1973-78	10- 9-78	3.56
13336650	East Fork Papoose Creek near Powell ranger station	Lat 46°32'07", long 114°45'52", in SE¼SW¼NE¼ sec. 24, T.36 N., R.13 E., Idaho County, Clearwater National Forest, at forest road and 3 mi (4.8 km) northwest of Powell ranger station.	a4.51	1961-71b, 1973-78	8- 8-78	2.47
13368000	Warm Springs Creek near Powell ranger station	Lat 46°28'20", long 114°53'10", in sec.7, T.36 N., R.13 E. (unsurveyed), Idaho County, Clearwater National Forest, at mouth and 9 mi (14.5 km) west of Powell ranger station.	a74.7	1911,1924, 1956-59‡, 1973-78	8- 9-78	43.6
13336850	Weir Creek near Powell ranger station	Lat 46°27'31", long 115°02'01", near W¼ cor., sec.13, T.36 N., R.11 E. (unsurveyed), Idaho County, Clearwater National Forest, 200 ft (61 m) upstream from U.S. Highway 12 and 16 mi (26 km) west of Powell ranger station.	a12.2	1961-71b, 1973-78	8- 9-78	7.16
13336900	Fish Creek near Lowell	Lat 46°20'01", long 115°20'50", in sec.33, T.35 N., R.9 E. (unsurveyed), Idaho County, Clearwater National Forest, at mile 0.2 (0.3 km), 1.3 mi (2.1 km) southwest of Lochsa ranger station, and 18 mi (29 km) northeast of Lowell.	89.2	1924, 1957-58‡, 1973-76, 1978	9- 9-78	74.7
13337100	Clear Creek near Kooskia	Lat 46°07'56", long 115°57'55", in SE¼NW¼NW¼ sec. 10, T.32 N., R.4 E., Idaho County, at county road, 0.1 mi (0.2 km) upstream from mouth, 1.5 mi (2.4 km) east of Kooskia.	a102	1924, 1962‡, 1968‡, 1971-72‡, 1973-78	9-17-78	38.8
1333/200	Red Horse Creek near Elk City	Lat 45°47'39", long 115°23'59", in SW¼SW¼NW¼ sec. 6, T.28 N., R.9 E. (unsurveyed), Idaho County, Nez Perce National Forest, 75 ft (23 m) upstream from Elk City-Dixie road and 3.0 mi (4.8 km) southeast of Elk City.	9.13	1961-71b, 1973, 1975-78	9-10-78	3.07
13337700	Peasley Creek near Golden	Lat 45°49'05", long 115°49'01", in SE¼ sec.27, T.29 N., R.5 E. (unsurveyed), Idaho County, Nez Perce National Forest, at State Highway 14 and 6.6 mi (10.6 km) west of Golden.	14.2	1962-71b, 1973, 1975-78b	9-10-78	10.0
13338000	South Fork Clearwater River near Grangeville	Lat 45°54'49", long 116°00'17", in SW¼NW¼SE¼ sec. 30, T.30 N., R.4 E., Idaho County, Nez Perce National Forest, at mouth of Schwartz Creek, 300 ft (91 m) downstream from old gage site, 6 mi (10 km) east of Grangeville, and at mile 21.7 (34.9 km).	865	1910-16‡, 1923-63‡, 1973, 1975-76, 1978	9-16-78	434
13338200	Sally Ann Creek near Stites	Lat 46°00'40", long 115°57'40", in SE¼ sec.21, T.31 N., R.4 E., Idaho County, at State Highway 13 and 5.8 mi (9.3 km) south of Stites.	13.9	1961-71b, 1973, 1975-78	9-16-78	2.05
13339500	Lolo Creek near Greer	Lat 46°22'30", long 116°08'30", in SW¼ sec.13, T.35 N., R.2 E., on line between Clearwater and Idaho Counties, 300 ft (91 m) downstream from powerplant of Nez Perce Co. and 1.5 mi (2.4 km) south of Greer.	243	1912-13‡, 1964,1973, 1975-76, 1978	9-17-78	77.3
13339700	Canal Gulch Creek at Pierce ranger station	Lat 46°29'50", long 115°47'30", in SE¼SE¼NW¼ sec. 2, T.36 N., R.5 E., Clearwater County, at Pierce ranger station and 0.5 mi (0.9 km) north of Pierce.	5.9	1961-71b, 1973-78	9-17-78	2.67
13339900	Deer Creek near Orofino	Lat 46°29'30", long 116°10'30", in SW¼ sec.3, T.36 N., R.2 E., Clearwater County, at dirt road and 3.0 mi (4.8 km) east of Orofino.	a6.8	1962-71b, 1973-78b	9-17-78	.14
13341100	Cold Springs Creek near Craigmont	Lat 46°14'10", long 116°31'06", in NE¼ sec.1, T.33 N., R.2 W., Lewis County, at U.S. Highway 95 and 2.7 mi (4.3 km) west of Craigmont.	8.07	1961-71b, 1973, 1975-78b	9-16-78	.22
13341400	East Fork Potlatch River near Bovill	Lat 46°50'08", long 116°23'26", in SW¼SW¼ sec.6, T.40 N., R.1 E., Latah County, 60 ft (18 m) upstream from highway bridge and 1.5 mi (2.4 km) south of Bovill.	41.6	1959-71‡, 1973, 1975-78	9-20-78	11.0
13341500	Potlatch River at Kendrick	Lat 46°36'50", long 116°39'40", in SE¼NE¼NW¼ sec. 25, T.38 N., R.3 W., Latah County, at Mill Street bridge in Kendrick.	425	1946-60‡, 1961-71, 1974-78	9-19-78	31.5

Discharge measurements made at low-flow partial-record stations during water year 1978

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Measurements	
					Date	Discharge (ft³/s)
		Clearwater River basin--Continued				
13342000	Mission Creek near Winchester	Lat 46°11'20", long 116°38'49", in SW¼NE¼ sec.24, T.33 N., R.3 W., Lewis County, at county road crossing and 4.0 mi (6.4 km) southwest of Winchester.	a16	1940-45‡, 1938,1956, 1973, 1975-78	9-15-78	0.57
13342150	Lapwai Creek above Sweetwater Creek, near Sweetwater	Lat 46°21'28", long 116°46'01", in NE¼SW¼SW¼ sec. 19, T.35 N., R.3 W., Nez Perce County, at bridge, 400 ft (122 m) downstream from Thiessen Gulch, 1.9 mi (3.1 km) upstream from Sweetwater Creek, and 1.7 mi (2.7 km) southeast of Sweetwater.	-	1973, 1975-78	9-15-78	8.08
		Palouse River basin				
13344620	Palouse River near Harvard	Lat 46°57'00", long 116°40'20", in NE¼NE¼NE¼ sec. 35, T.42 N., R.3 W., Latah County, 30 ft (10 m) upstream from U.S. Highway Alt. 95 bridge and 3.5 mi (5.6 km) northeast of Harvard.	-	1963-64, 1974-78	9-21-78	11.1
13344700	Deep Creek tributary near Potlatch	Lat 47°01'28", long 116°52'57", in SE¼ sec.31, T.43 N., R.4 W., Latah County, at U.S. Highway 95 and 7.0 mi (11.2 km) north of Potlatch.	2.90	1961-71, 1975, 1978	9-14-78	.06
13344800	Deep Creek near Potlatch	Lat 46°57'38", long 116°56'04", in SE¼SW¼SW¼ sec. 23, T.42 N., R.5 W., Latah County, on farm road and 3.3 mi (5.3 km) northwest of Potlatch.	36.6	1961-71, 1972-78b	9-14-78	.08
13346450	South Fork Palouse River near Moscow	Lat 46°42'41", long 116°58'45", in NE¼SE¼NE¼ sec. 20, T.39 N., R.5 W., Latah County, 0.6 mi (1.0 km) south of Mountain View Ave.-State Highway 8 junction and 1.0 mi (1.6 km) southeast of Moscow.	25.1	1972-78	9-18-78	.32
13346700	Paradise Creek near Moscow	Lat 46°43'45", long 116°58'32", in SE¼SW¼NW¼ sec.9, T.39 N., R.5 W., Latah County, on D Street 1.2 mi (1.9 km) east of U.S. Highway 95 in Moscow.	-	1973-78	9-12-78	0

‡ Operated as a continuous-record gaging station.
a Approximately.
b Operated as a crest-stage station.
c Estimated.

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained but is not published herein. Measurements made to rate the crest-stage stations are given in the list of miscellaneous measurements. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest-stage partial-record stations during water year 1978

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Annual maximum Gage height (feet)	Annual maximum Discharge (ft^3/s)
		Kootenai River basin					
12305500	Boulder Creek near Leonia	Lat 48°35'54", long 116°05'30', in NE¼ sec.32, T. 61 N., R.3 E., Boundary County, Kaniksu National Forest, 0.8 mi (1.3 km) downstream from McGinty Creek 2.5 mi (4.0 km) southwest of Leonia, and at mile 2.8 (4.5 km).	a53	1928-71‡, 1973-77‡, 1978	5-15-78	4.67	847
12310800	Trail Creek at Naples	Lat 48°34'28", long 116°23'20", in SW¼SW¼ sec.6, T.60 N., R.1 E., Boundary County, at culvert crossing of Spokane International Railroad and 0.2 mi (0.3 km) north of Naples School.	16.1	1961-71, 1973-78	4-29-78	8.13	130
		Pend Oreille River basin					
12392100	Trapper Creek near Clark Fork	Lat 48°15'57", long 116°07'00", in NE¼ sec.30, T. 57 N., R.3 E., Bonner County, at forest road and 9.8 mi (15.8 km) north of Clark Fork.	1.12	1962-78	5-10-78	14.22	33
12393600	Binarch Creek near Coolin	Lat 48°28'10", long 116°55'20", in NE¼ sec.13, T. 59 N., R.5 W., Bonner County, at State Highway 57 and 3 mi (4.8 km) west of Coolin.	10.7	1962-71, 1973-78	3-31-78	11.98	64
		Spokane River basin					
12413100	Boulder Creek at Mullan	Lat 47°28'08", long 115°47'40", in NE¼SE¼NE¼ sec. 34, T.48 N., R.5 E., Shoshone County, at U.S. Highway I-90 crossing in Mullan.	3.13	1961-71, 1973-78	5-22-78	12.34	120
12413700	Latour Creek near Cataldo	Lat 47°28'10", long 116°26'15", in NE¼ sec.34, T. 48 N., R.1 W., Kootenai County, at BLM road bridge, 0.4 mi (0.6 km) upstream from Baldy Creek, at mile 6.5 (10.5 km), and 7.8 mi (12.6 km) southwest of Cataldo.	24.8	1961-71‡, 1973-78	12-15-77	-	550
12414400	East Fork Big Creek near Calder	Lat 47°18'07", long 116°07'05", in SW¼NE¼SE¼ sec. 30, T.48 N., R.3 E., Shoshone County, at road bridge and 3.7 mi (6.0 km) northeast of Calder.	15.4	1973-78	12- 3-77	12.96	590
12415200	Plummer Creek tributary at Plummer	Lat 47°20'20", long 116°53'14", in SW¼ sec.7, T. 46 N., R.4 S., Benewah County, at U.S. Highway 95 and 0.2 mi (0.3 km) north of Plummer.	2.10	1961-78	12-14-77	10.63	165
		Little Canyon Creek basin					
13155300	Little Canyon Creek at Stout Crossing, near Glenns Ferry	Lat 43°09'14", long 115°18'32", in NE¼NW¼NE¼ sec. 19, T.3 S., R.10 E., Elmore County, on left bank at county road crossing and 13.8 mi (22.2 km) north of Glenns Ferry.	14.2	1961-65, 1966-71‡, 1973-78	3-30-74 3- 6-78	4.10 3.98	b155 105
		Sailor Creek basin					
13157005	Pot Hole Creek tributary near Winter Camp Butte	Lat 42°38'15", long 115°21'25", in SE¼ sec.26, T. 9 S., R.9 E., Owyhee County, at road crossing and 4.4 mi (7.1 km) east of Winter Camp Butte.	-	1973-78	-	-	(c)
		Bruneau River basin					
13170100	Sugar Creek tributary near Grasmere	Lat 42°33'49", long 115°54'25", in NE¼ sec.18, T. 10 S., R.5 E., Owyhee County, at State Highway 51 crossing and 13.5 mi (21.7 km) north of Grasmere.	4.50	1961-71, 1973-78	8-16-78	12.40	57
13170200	Sugar Creek near Bruneau	Lat 42°40'36", long 115°53'30", in NW¼SW¼NE¼ sec. 5, T.9 S., R.5 E., Owyhee County, at road crossing and 15 mi (24 km) south of Bruneau.	33.6	1973-78	-	-	(c)
13171700	Poison Creek near Grandview	Lat 42°45'05", long 116°18'20", in SE¼ sec.2, T.8 S., R.1 E., Owyhee County, at road crossing, 16.5 mi (26.5 km) east of Triangle, and 19.5 mi (31.4 km) southwest of Grandview.	-	1973-78	8-16-78	-	d1.7-10.8
13172200	Fossil Creek near Oreana	Lat 43°05'37", long 116°26'27", in SW¼NE¼NW¼ sec. 10, T.4 S., R.1 W., Owyhee County, 670 ft (204 m) downstream from Murphy-Grandview road crossing and 4 mi (6.4 km) northwest of Oreana.	19.7	1961-71, 1973-78	7-22-75 8-16-78	-	b109 39
		Squaw Creek basin					
13172800	Little Squaw Creek tributary near Marsing	Lat 43°21'50", long 116°55'17", in SW¼ sec.3, T.1 S., R.5 W., Owyhee County, at U.S. Highway 95 and 14 mi (23 km) southwest of Marsing.	1.81	1961-71, 1973-78	8-16-78	6.99	14

See footnotes at end of table, p. 281.

Annual maximum discharge at crest-stage partial-record stations during water year 1978

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft³/s)
		Owyhee River basin					
13176100	Blue Creek near Grasmere	Lat 42°27'32", long 116°44'55", in NE¼NW¼ sec.20, T.11 S., R.2 E., Owyhee County, at road crossing and 19 mi (30 km) northwest of Grasmere.	-	1975-78	3-18-76 3-23-78	9.60 5.9‡	b205 94
		Boise River basin					
13184200	Roaring River near Rocky Bar	Lat 43°42'20", long 115°27'50", in sec.2, T.4 N., R.8 E., Elmore County, 6 mi (10 km) upstream from mouth and 9 mi (14 km) northwest of Rocky Bar.	23.3	1958, 1963-71, 1973-78	6-10-78	16.79	430
13204800	Cottonwood Creek near Boise	Lat 43°36'59", long 116°09'30", in NE¼SE¼NW¼NE¼ sec.12, T.3 N., R.2 E., Ada County, at Shaw Mountain Road crossing, at confluence of left bank unnamed tributary, 0.8 mi (1.3 km) downstream from Picket Pin Creek, and 2.0 mi (3.2 km) east of State Capitol Building in Boise.	11.7	1959, 1973-78	3- 5-78	5.89	47
13210300	Bryans Run near Boise	Lat 43°27'02", long 116°04'08", in NE¼NW¼ sec.11, T.1 N., R.3 E., Ada County, at U.S. Highway 30 crossing and 15 mi (24 km) southeast of Boise.	7.94	1961-78	2-29-76 3- 5-78	10.36 10.33	b63 60
		Payette River basin					
13234300	Fivemile Creek near Lowman	Lat 44°06'20", long 115°27'30", in NE¼ sec.24, T. 9 N., R.8 E., Boise County, at State Highway 21 crossing and 8.5 mi (13.7 km) east of Lowman.	a7.8	1962-71, 1973-78	6-15-78	18.06	187
13245400	Tripod Creek at Smiths Ferry	Lat 44°17'55", long 116°05'17", in SW¼ sec.10, T. 11 N., R.3 E., Valley County, at State Highway 15 at Smiths Ferry.	8.63	1962-71, 1973-78	12-15-77	5.61	128
13248900	Cottonwood Creek near Horseshoe Bend	Lat 43°53'35", long 116°12'09", in NW¼NE¼ sec.3, T.6 N., R.2 E., Boise County, at Harris Creek road and 1.5 mi (2.4 km) south of Horseshoe Bend.	6.53	1961-71, 1973-78	12-15-77	11.53	45
13248970	Johnson Creek near Montour	Lat 43°55'08", long 116°21'21", in NW¼SE¼NE¼ sec. 29, T.7 N., R.1 E., Gem County, at county road crossing, 0.2 mi (0.3 km) upstream from mouth, 1.4 mi (2.7 km) west of Montour, and 7.8 mi (12.5 km) northeast of Emmett.	-	1973-78	12-15-77	3.74	46
13261670	Dixie Creek near Cambridge	Lat 44°29'56", long 116°36'26", in NW¼NE¼NW¼ sec. 5, T.13 N., R.2 W., Washington County, at section line road crossing, 4.4 mi (7.1 km) upstream from mouth, 5.1 mi (8.2 km) southeast of Cambridge, and 5.5 mi (8.8 km) east of Midvale.	-	1973-78	2-8-78	16.43	225
		Salmon River basin					
13301700	Morse Creek above diversions, near May	Lat 44°36'55", long 113°48'25", in SW¼ sec.24, T. 15 N., R.22 E., Custer County, 0.6 mi (1.0 km) upstream from mouth of canyon and 5.2 mi (8.4 km) east of May.	18.0	1962-71, 1973-78	6- 9-78	5.49	275
13305800	Hughes Creek near North Fork	Lat 45°31'12", long 114°01'59", in SW¼NE¼SW¼ sec. 6, T.25 N., R.21 E., Lemhi County, just upstream from West Fork Hughes Creek and Allen Creek and 8.0 mi (13 km) northwest of North Fork.	15.7	1962-78	6- 9-78	5.64	130
		Clearwater River basin					
13336450	Rackcliff Creek at O'Hara guard station	Lat 46°05'05", long 115°29'38" (unsurveyed), Idaho County, in Rackcliff campground, 1.5 mi (2.4 km) east of O'Hara youth camp, and 8.1 mi (13.0 km) east of Lowell.	8.44	1973-78	4- 1-78	26.05	120
13337540	Legget Creek near Golden	Lat 45°49'36", long 115°37'35" (unsurveyed), Idaho County, at mouth, at State Highway 14 crossing, 2.8 mi (4.5 km) northeast of Golden, and 13 mi (20.9 km) west of Elk City.	7.78	1973-78	-	20.06	300
13337700	Peasley Creek near Golden	Lat 45°49'05", long 115°49'01", in SE¼ sec.27, T. 29 N., R.5 E. (unsurveyed), Idaho County, at State Highway 14 crossing and 6.6 mi (10.6 km) west of Golden.	14.2	1961-71, 1974-78	6- 7-78	9.76	100

Annual maximum discharge at crest-stage partial-record stations during water year 1978

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft^3/s)
		Clearwater River basin--Continued					
13339700	Canal Gulch Creek at Pierce ranger station	Lat 46°29'50", long 115°47'30", in NW¼ sec.2, T. 36 N., R.5 E., Clearwater County, at Pierce ranger station and 0.5 mi (0.8 km) north of Pierce.	[a]6.0	1962-71, 1973-78	12- 3-77	14.21	160
13339900	Deer Creek near Orofino	Lat 46°29'30", long 116°10'30", in SW¼ sec.3, T. 36 N., R.2 E., Clearwater County, at dirt road and 3.0 mi (4.8 km) east of Orofino.	[a]6.8	1962-71, 1974-78	12-14-77	8.53	240
13341100	Cold Springs Creek near Craigmont	Lat 46°14'10", long 116°31'06", in NE¼ sec.1, T. 33 N., R.2 W., Lewis County, at U.S. Highway 95 crossing and 2.7 mi (4.3 km) west of Craigmont.	8.07	1961-65, 1967-71, 1975-78	3- 9-78	12.64	27
13341300	Bloom Creek near Bovill	Lat 46°51'30", long 116°17'30", in NE¼ sec.35, T. 41 N., R.1 E., Clearwater County, 200 ft (67 m) upstream from mouth and 4.8 mi (7.7 km) east of Bovill.	3.66	1959-71‡, 1973-78	12-14-77	3.15	120
13343010	Lindsay Creek tributary No. 4 near Lewiston	Lat 46°22'10", long 116°53'28", in NE¼NW¼NW¼ sec. 19, T.35 N., R.4 W., Nez Perce County, at road crossing, 1.5 mi (2.4 km) east of Lewiston Orchards,and 6 mi (10 km) southeast of Lewiston.	2.96	1973-78	12-14-77	11.61	47
		Palouse River basin					
13344800	Deep Creek near Potlatch	Lat 46°57'38", long 116°56'04", in SW¼ sec.23, T. 42 N., R.5 W., Latah County, at county road crossing and 3.3 mi (5.3 km) northwest of Potlatch.	36.6	1960-78	12-13,14-77 3-25-76	13.40 13.33	500 635
13346750	Paradise Creek at Moscow	Lat 46°43'27", long 116°58'45", in SW¼SW¼NW¼ sec. 16, T.39 N., R.5 W., Latah County, on Mountain View Avenue at the southeast edge of Moscow.	14.0	1974-78	12-14,15-77	10.70	145

‡ Operated as a continuous-record gaging station.
a Approximately.
b Revised.
c No evidence of flow during year.
d Known to be greater than first figure but less than second.

Discharge measurements made at miscellaneous sites during water year 1978

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Kootenai River basin				
Trail Creek 12310800	Deep Creek	Operated as a crest-stage station.	a16	1961-71b, 1973-77b	5-10-78 9-11-78	52.1 1.66
Kootenai River 12322000	Columbia River	Lat 49°00'00", long 116°30'10", in SW¼ sec.8 T.65 N., R.1 W., Boundary County, on right bank 300 ft (90 m) south of International Boundary at Porthill, and at mile 105.63 (169.0 km).	13,700	1972-77	10- 3-77 11-29-77 3-28-78 6- 1-78 7-28-78	9,620 15,700 11,500 16,700 14,000
Kootenay River 12322900	Columbia River	Lat 49°29'40", long 117°20'04", at Grohman Narrows, 2 mi (3 km) downstream from Nelson, British Columbia; measurements referred to gage No. 10 at Nelson (sta 8NJ-9 of Water Survey of Canada).	17,700	1932-77	2-23-78 6-28-78 9-13-78	15,100 43,000 31,700
		Pend Oreille River basin				
Trapper Creek 12392100	Lightning Creek	Operated as a crest-stage station.	1.12	1961-71b, 1963-77b	5-22-78 8-11-78	30.6 .01
Brickel Creek 12392850	Spirit Lake	Lat 47°55', long 117°01', in SE¼ sec.19, T.53 N., R.5 W., Kootenai County, at road crossing, about 3 mi (5 km) upstream from mouth, and 7 mi (11 km) southwest of Spirit Lake.	16.2	1959	6-20-78 7-19-78 8-19-78 9-25-78	21.1 9.33 9.89 6.09
Brickel Creek 12392852	Spirit Lake	Lat 47°56'10", long 116°58'39", in SW¼SW¼ SW¼ sec.16, T.53 N., R.5 W., Kootenai County, 5 mi (8 km) southwest of Spirit Lake.	-	-	4-18-78	62.5
Brickel Creek 12392854	Spirit Lake	Lat 47°56'10", long 116°56'58", in NW¼SE¼SW¼ sec.15, T.53 N., R.5 W., Kootenai County, Coeur d'Alene National Forest, at old log canal crossing 5 mi (8 km) southwest of Spirit Lake.	24.5	-	4-18-78 6-20-78 7-19-78 8-19-78 8-30-78 9-25-78	65.4 21.9 11.7 9.50 3.13 6.39
Spirit Creek 12392857	Fish Lake	Lat 47°57'56", long 116°52'57", in NE¼SE¼SW¼ sec.6, T.53 N., R.4 W., Kootenai County, at outlet of Spirit Lake 0.5 mi (0.8 km) west of Spirit Lake.	-	-	4-18-78 6-26-78	39.6 .20
Binarch Creek 12393600	Priest River	Operated as a crest-stage station.	10.7	1962-71b, 1973-77b	3-30-78 7-18-78 8-29-78	54.9 c11 3.32
		Spokane River basin				
Shields Gulch 12413165	South Fork Coeur d'Alene River	Lat 47°28'55", long 115°59'40", in NW¼SW¼NE¼ sec.30, T.48 N., R.4 E., Shoshone County, about 2 mi (3 km) southeast of Osburn.	.68	1971-73 1977	8-15-78	.86
Boulder Creek 12413100	South Fork Coeur d'Alene River	Operated as a crest-stage station.	3.13	1961-71, 1973-77b	2-22-78 6- 8-78 8-15-78	c3.0 55.7 2.28
South Fork Coeur d'Alene River 12413490	Coeur d'Alene River	Lat 47°33'35", long 116°15'03", in SW¼SE¼ sec.30, T.49 N., R.1 E., Shoshone County, at highway bridge.	-	1972-77	12-13-77 3-21-78 6-22-78 8-22-78	1,620 1,220 575 196
Coeur d'Alene River 12413600	Spokane River	Lat 47°32'52", long 116°20'00", in NE¼SE¼ sec.33, T.49 N., R.1 E., Kootenai County, at U.S. Highway 10 bridge crossing at Cataldo.	-	1972-77	3-20-78	4,980
Latour Creek 12413700	Coeur d'Alene River	Operated as a crest-stage station.	24.8	1961-71, 1973-77b	6- 6-78 8-17-78	127 13.7
East Fork Big Creek 12414400	Big Creek	Operated as a crest-stage station.	15.4	1973-77b	6- 8-78	53.7
Plummer Creek tributary 12415200	Plummer Creek	Operated as a crest-stage station.	2.10	1961-72b, 1974-77b	12-13-77 8-16-78	59.7 0
Lewellen Creek 12415970	Spokane River	SW¼SW¼ sec.24, T.53 N., R.3 W., Kootenai County, and 2.5 mi (4.0 km) southeast of Athol.	6.75	1977	4-17-78 5-18-78 6-21-78 7-17-78 8-17-78 9-28-78	7.05 14.2 3.66 2.89 2.68 1.24
Sage Creek 12415980	Spokane River	Lat 47°54'05", long 116°38'26", in NE¼NW¼NE¼ sec.36, T.53 N., R.3 W., Kootenai County, Coeur d'Alene National Forest, 4 mi (6 km) southeast of Athol.	7.54	-	3-22-78 4-17-78 5-18-78 6-23-78 7-17-78 8-17-78 9-28-78	21.5 13.6 21.0 34.6 5.38 5.53 2.31

See footnotes at end of table, p. 286.

Discharge measurements made at miscellaneous sites during water year 1978

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Spokane River basin--Continued				
Hayden Creek 12416520	Hayden Lake	Lat 47°48'58", long 116°41'37", in NW¼NE¼NW¼ sec.34, T.52 N., R.5 W., Kootenai County, Coeur d'Alene National Forest, at mouth and 5 mi (8 km) northeast of Hayden.	28.5	-	4-18-78	51.5
					5-23-78	67.2
					6-21-78	17.8
					7-17-78	18.1
					8-14-78	22.7
					9-26-78	6.21
Mokins Creek 12416540	Hayden Lake	Lat 47°46'58", long 116°39'58", in NW¼SW¼NE¼ sec.11, T.51 N., R.3 W., Kootenai County, Coeur d'Alene National Forest, at mouth and 6 mi (10 km) east of Hayden.	7.78	-	4-18-78	11.1
					5-23-78	1.75
					8-14-78	0
Yellowbanks Creek 12416560	Hayden Lake	Lat 47°45'39", long 116°40'39", in NW¼SW¼SW¼ sec.14, T.51 N., R.3 W., Kootenai County, Coeur d'Alene National Forest, at mouth and 6 mi (10 km) east of Hayden.	-	-	4-19-78	5.42
					5-23-78	10.1
					6-21-78	10.6
					7-17-78	.54
					8-14-78	0
					9-27-78	0
Fish Creek 12419095	Twin Lakes	Lat 47°53'08", long 116°56'39", in NE¼SW¼NE¼ sec.5, T.52 N., R.5 W., Kootenai County, 2.5 mi (4.0 km) above Twin Lakes and approximately 7 mi (11 km) northwest of Rathdrum.	10.5	-	4-20-78	37.7
					5-26-78	29.7
					6-22-78	11.6
					7-19-78	7.50
					8-18-78	8.72
					9-26-77	5.12
Fish Creek 12419100	Twin lakes	Lat 47°53'08", long 116°57'07", in NW¼SE¼NW¼ sec.3, T.52 N., R.5 W., Kootenai County, at road crossing, 1.5 mi (2.4 km) upstream from Twin Lakes, and 6.0 mi (9.7 km) northwest of Rathdrum.	14.7	1959,1973, 1975-77	4-20-78	47.0
					5-26-78	36.8
					6-22-78	10.9
					7-20-78	8.42
					8-19-78	7.81
					8-30-78	2.34
					9-26-78	6.27
Shove Creek 12419110	Twin Lakes	Lat 47°52'46", long 116°56'42", in SW¼NW¼SE¼ sec.3, T.52 N., R.5 W., Kootenai County, at road crossing above diversion and 5 mi (8 km) northwest of Rathdrum.	2.56	-	4-20-78	7.45
					5-26-78	6.08
					6-22-78	3.67
					7-20-78	2.07
					8-19-78	2.30
					9-26-78	1.37
Rathdrum Creek 12419210	Spokane River	Lat 47°51'24", long 116°51'58", in NE¼SW¼NW¼ sec.17, T.52 N., R.4 W., Kootenai County, 0.1 mi (0.2 km) below Twin Lakes outlet and 3 mi (5 km) northeast of Rathdrum.	-	-	3-22-78	20.1
					4-19-78	5.24
					5-26-78	31.8
					6-23-78	5.54
					7-19-78	6.58
					8-18-78	5.73
					9-26-78	8.56
Rathdrum Creek 12419220	Spokane River	Lat 47°48'31", long 116°54'02", in NE¼NW¼SE¼ sec.36, T.52 N., R.5 W., Kootenai County, at Highway 41 crossing at Rathdrum.	-	-	3-22-78	17.1
					4-19-78	5.71
					5-26-78	26.2
					6-23-78	.84
					7-19-78	.86
					8-17-78	.31
					9-26-78	.99
Lost Creek 12419230	Spokane River	Lat 47°47'45", long 116°57'05", in SW¼SE¼NW¼ sec.3, T.51 N., R.5 W., Kootenai County, at Howelltown Road crossing and 2.2 mi (3.5 km) southwest of Rathdrum.	7.70	-	3-22-78	13.6
					4-20-78	8.09
					5-23-78	8.21
					6-22-78	2.32
					7-18-78	1.57
					8-17-78	1.64
					9-26-78	.82
Hauser Lake outlet 12419250	Spokane River	Lat 47°45'55", long 117°00'43", in SE¼NE¼SW¼ sec.18, T.51 N., R.5 W., Kootenai County, below Rainbow Inn bridge and 0.75 mi (1.21 km) southeast of Hauser.	-	-	3-22-78	19.6
					4-19-78	27.2
					5-23-78	23.2
					6-23-78	6.83
					8-23-78	1.93
					9-26-78	0
		Little Canyon Creek basin				
Little Canyon Creek 13155300	Snake River	Operated as a crest-stage station.	.76	1961-65, 1966-71‡, 1973-77 b	3-18-78	39.1
					4-23-78	31.3
					5-24-78	32.2
					9-18-78	1.25
		Sailor Creek basin				
Pothole Creek tributary 13157005	Pothole Creek	Operated as a crest-stage station.	-	1973-77 b	6-20-78	0
					9-18-78	0

Discharge measurements made at miscellaneous sites during water year 1978

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Bruneau River basin				
Sugar Creek tributary 13170100	Sugar Creek	Operated as a crest-stage station.	-	1961-77b	3-27-78	0
					8-21-78	0
					9-18-78	0
Sugar Creek 13170200	Bruneau River	Operated as a crest-stage station.	-	1974-77b	3-27-78	0
					8-21-78	0
					9-18-78	0
		Poison Creek basin				
Poison Creek 13171700	Snake River	Operated as a crest-stage station.	-	1973-77b	3-23-78	1.73
					9-18-78	c .10
		Fossil Creek basin				
Fossil Creek 13172200	Snake River	Operated as a crest-stage station.	19.7	1961-72b, 1975-77	3-27-78	0
					9-18-78	0
		Squaw Creek basin				
Little Squaw Creek tributary 13172800	Little Squaw Creek	Operated as a crest-stage station.	1.81	1961-77b	3-22-78	0
					9-19-78	0
		Owyhee River basin				
Blue Creek 13176100	Owyhee River	Operated as a crest-stage station.	-	1975-77b	6-20-78	0
					9-18-78	0
		Snake River basin				
Snake River 13172850	Columbia River	Lat 43°32'54", long 116°47'57", in NW¼SW¼SE¼ sec.34, T.3 N., R.4 W., Owyhee County, at State Highway 72 crossing at Marsing.	-	1969-77	11-10-77	8,050
					1-10-78	8,070
					3-16-78	11,300
					5-11-78	14,300
					7-11-78	5,840
					9- 8-78	9,740
		Boise River basin				
Roaring River 13184200	Boise River	Operated as a crest-stage station.	23.3	1958, 1963-71, 1973-77b	6-20-78	207
					9-11-78	23.6
Cottonwood Creek 13204800	Boise River	Operated as a crest-stage station.	11.7	1959, 1973-77b	1-12-78	6.76
					9-28-78	.47
Bryans Run 13210300	Blacks Creek	Operated as a crest-stage station.	7.03	1961-77b	1-12-78	3.67
					3-27-78	0
					6-16-78	0
					9-14-78	0
		Payette River basin				
Five Mile Creek 13234300	Payette River	Operated as a crest-stage station.	a7.8	1962-71b, 1973-77b	6-12-78	91.8
					9-12-78	9.56
Boiling Springs 13237539	Middle Fork Payette River	Lat 44°21'50", long 115°22'22", in SW¼NW¼NW¼ sec.22, T.12 N., R.5 E., Valley County, Boise National Forest, at Boiling Springs guard station, 19 mi(31 km) north of Garden Valley.	-	-	7-25-78	0.37
Tripod Creek 13245400	North Fork Payette River	Operated as a crest-stage station.	8.63	1962-71b, 1973-77b	3-23-78	18.0
					4-28-78	69.1
					6- 5-78	25.6
					9-25-78	.54
Cottonwood Creek 13248900	Harris Creek	Operated as a crest-stage station.	6.53	1961-71b 1974-77b	6-13-78	c .2
					9-27-78	0
Johnson Creek 13248970	Payette River	Operated as a crest-stage station.	-	1974-77b	3-24-78	.76
					7-28-78	0
					9-27-78	.67
		Weiser River basin				
Dixie Creek 13261670	Weiser River	Operated as a crest-stage station.	-	1973-77b	2- 2-78	7.82
					7-17-78	0
					9-12-78	0
					9-28-78	c .02

Discharge measurements made at miscellaneous sites during water year 1978

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
Salmon River basin						
Salmon River 13293800	Snake River	Lat 44°09'50", long 114°53'10", in NE¼ sec. 25, T.10 N., R.13 E., Custer County, Sawtooth National Forest, at U.S. Highway 93 crossing, and 4.5 mi (7.2 km) southeast of Stanley.	-	1957,1958, 1973, 1975-77	7-17-78 8- 7-78 9-11-78	1,110 307 399
Yankee Fork Salmon River 13296000	Salmon River	Lat 44°17'15", long 114°43'11", in NE¼SW¼ sec.17, T.11 N., R.15 E. (unsurveyed), Custer County, Challis National Forest, at Sunbeam-Custer bridge, 1.8 mi (2.9 km) north of Sunbeam, 1.9 mi (3.1 km) upstream from mouth, and 12 mi (19 km) northeast of Stanley.	195	1921-49‡, 1971-73, 1975-77	7-17-78 8- 7-78 9-11-78	383 142 108
Little Boulder Creek 13297440	East Fork Salmon River	Lat 44°03'30", long 114°23'17", in SE¼SE¼ sec. 33, T.9 N., R.16 E. (unsurveyed), Custer County, at narrow constriction between two meadows, 0.4 mi (0.6 km) downstream from unnamed lake, 0.5 mi (0.8 km) upstream from mouth of Castle Creek, 0.6 mi (1.0 km) west of Baker Lake, 8.5 mi (13.7 km) upstream from mouth, and 16.5 mi (26.5 km) southwest of Clayton.	2.83	1970-77	9-13-78	5.92
Little Boulder Creek 13297445	East Fork Salmon River	Lat 44°03'36", long 114°32'31", in NW¼SE¼ sec. 35, T.9 N., R.16 E. (unsurveyed), Custer County, just below Boulder Chain Lakes outlet, 6 mi (10 km) upstream from mouth, and 15.6 mi (25.1 km) southwest of Clayton.	9.94	1970-77	9-13-78	18.1
Big Boulder Creek 13297480	East Fork Salmon River	Lat 44°07'47", long 114°31'33", in NW¼NE¼ sec. 12, T.9 N., R.16 E. (unsurveyed), Custer County, 0.4 mi (0.6 km) upstream from mouth of Jim Creek, 5.2 mi (8.4 km) upstream from mouth, and 10 mi (16 km) southwest of Clayton.	12.7	1970-77	7-12-78 9-13-78	80.3 16.0
Jim Creek 13297485	Big Boulder Creek	Lat 44°07'54", long 114°21'43", in SW¼SW¼ sec. 1, T.9 N., R.16 E. (unsurveyed), Custer County, 0.2 mi (0.3 km) upstream from cross-at Livingston Mill, 0.6 mi (1.0 km) upstream from mouth, and 10 mi (16 km) southwest of Clayton.	53.4	1970-77	7-12-78 9-13-78	11.6 3.26
Big Boulder Creek 13297500	East Fork Salmon River	Lat 44°05'58", long 114°26'24", in SW¼NW¼NE¼ sec.15, T.9 N., R.17 E., Custer County, at bridge crossing, 0.4 mi (0.6 km) upstream from mouth, and 10 mi (16 km) southwest of Clayton.	24.7	1926-30‡, 1971-73, 1976-77	9-13-78	26.5
Pahsimeroi River basin						
Morse Creek 13301700	Pahsimeroi River	Operated as a crest-stage station.	18.0	1962-71b, 1973-77b	4-20-78 6-29-78 9-13-78	15.4 65.3 12.3
Salmon River basin						
Hughes Creek 13305800	North Fork Salmon River	Operated as a crest-stage station.	15.7	1962-71, 1973-77b	4-21-78 6-29-78 9-28-78	23.2 53.5 6.72
South Fork Salmon River 13310470	Salmon River	Lat 44°36'15", long 115°40'52", in SW¼NW¼ SW¼ sec.25, T.15 N., R.6 E., Valley County, Boise National Forest, 0.7 mi (1.1 km) below Lodgepole Creek, and 1.3 mi (2.1 km) north of Stolle Meadow guard station.	-	-	11- 3-77	25.9
South Fork Salmon River 13310480	Salmon River	Lat 44°37'58", long 115°41'40", in NW¼SE¼SW¼ sec.14, T.15 N., R.6 E., Valley County, Boise National Forest, on road to South Fork Plunge, 900 ft (270 m) past junction with Stolle Meadow road, and 2.2 mi (3.5 km) south of Warm Lake Highway.	-	-	11- 3-77	32.2
South Fork Salmon River 13310500	Salmon River	Lat 44°39'15", long 115°42'05", in NW¼ sec. 11, T.15 N., R.6 E., Valley County, Boise National Forest, 800 ft (240 m) downstream from Curtis Creek, 1 mi (2 km) upstream from Warm Lake Creek, 1.5 mi (2.4 km) southwest of Knox, and 21 mi (34 km) northeast of Cascade.	a92	1928-61‡, 1973, 1975-77	11- 3-77 9-27-78	46.5 53.1

Discharge measurements made at miscellaneous sites during water year 1978

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Salmon River basin--Continued				
Transmoutain diversion 13312300	Johnson Creek	Lat 44°32'30", long 115°34'00", in NE¼ sec. 23 T.14 N., R.7 E., Valley County, Boise National Forest, about 0.5 mi (0.8 km) downstream from point of transmountain Johnson Creek-Deadwood River diversion, 9 mi (14 km) south of Landmark ranger station, and 11 mi (18 km) southeast of Knox.	-	1937-41, 1951-52, 1954-65, 1967,1969, 1971,1976	7-18-78 9-27-78	12.7 2.0
Deer Creek 13317500	Salmon River	Lat 46°07', long 116°45', in SW¼ sec.18, T.32 N., R.3 W., on right bank 300 ft (90 m) downstream from proposed damsite, 0.8 mi (1.3 km) downstream from West Fork, 4.5 mi (7.2 km) upstream from East Fork, and 11 mi (18 km) southwest of Winchester.	19.1	1951-56‡, 1977	9-16-78	2.02
		Clearwater River basin				
Rackcliff Creek 13336450	Selway River	Operated as a crest-stage station.	8.44	1973-77b	12-15-77 3-14-78 5- 2-78	55.9 c7.0 40.0
Leggett Creek 13337540	South Fork Clearwater River	Operated as a crest-stage station.	7.78	1973-77b	6-14-78 8- 3-78	28.4 6.06
Peasley Creek 13337700	South Fork Clearwater River	Operated as a crest-stage station.	14.2	1962-71b, 1973, 1975-77b	5- 2-78 9-10-78	67.5 10.0
Canal Gulch Creek 13339700	Orofino Creek	Operated as a crest-stage station.	5.9	1961-71b, 1973-77b	12- 3-77 5- 3-78 9-17-78	44.3 c10.0 2.67
Deer Creek 13339900	Whiskey Creek	Operated as a crest-stage station.	a6.8	1962-71b, 1973-77b	12-13-77 3- 3-78 5- 4-78 9-17-78	124 c7.0 c2.0 .14
Lindsay Creek tributary No. 4 13343010	Lindsay Creek	Operated as a crest-stage station.	2.96	1973-75b, 1977b	12-14-77 1-25-78	5.6 0
		Palouse River basin				
Deep Creek 13344800	Palouse River	Operated as a crest-stage station.	36.6	1961-71, 1972-77b	12-13-77 3-21-78 9-14-78	245 37.9 .08
Paradise Creek 13346750	South Fork Palouse River	Operated as a crest-stage station.	14.0	1974-77b	12-15-77 3-16-78 4-20-78	37.8 c16 c4.0

‡ Operated as a continuous-record gaging station.
a Approximately.
b Operated as a crest-stage station.
c Estimated.

Water-quality partial-record stations are particular sites where chemical-quality, biological and/or sediment data are collected systematically over a period of years for use in hydrologic analyses. The data are collected usually less than quarterly.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)
SALMON RIVER BASIN												
13296500 - SALMON RIVER BELOW YANKEE FORK, NEAR CLAYTON, ID (LAT 44 16 06 LONG 114 43 55)												
MAY , 1978												
23...	1340	3170	62	--	9.5	5.5	--	--	--	--	--	--
JUN												
27...	1615	2910	55	--	24.0	11.0	--	--	--	--	--	--
AUG												
07...	1850	893	84	--	28.0	19.0	--	--	--	--	--	--
SEP												
11...	1745	836	113	8.3	7.5	10.5	--	--	--	--	--	43
13297440 - LITTLE BOULDER CREEK AB BAKER LAKE NR CLAYTON ID (LAT 44 03 30 LONG 114 31 54)												
SEP , 1978												
13...	0950	5.9	21	6.6	3.0	7.0	8.6	98	K2	<1	K2	9
13297445 - L BOULDER C BL BO. CHAIN LK OUTLET NR CLAYTON ID (LAT 44 03 56 LONG 114 32 15)												
SEP , 1978												
13...	0915	18	53	6.9	3.0	4.5	9.2	96	K6	K1	K6	25
13297480 - BIG BOULDER CR AT LIVINGSTON MILL NR CLAYTON ID (LAT 44 07 47 LONG 114 31 22)												
JUL , 1978												
12...	1045	88	44	7.2	18.0	6.0	9.7	101	92	K2	K4	18
SEP												
13...	1515	16	67	7.1	8.0	7.0	9.3	100	K5	K3	K3	33
13297485 - JIM CREEK AT LIVINGSTON MILL NR CLAYTON ID (LAT 44 07 54 LONG 114 31 43)												
JUL , 1978												
12...	1000	12	135	7.9	19.5	5.5	9.7	101	88	K2	K15	61
SEP												
13...	1445	3.3	141	7.5	8.0	6.0	9.6	101	K4	K3	21	84

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

SALMON RIVER BASIN--Continued

13296500 - SALMON RIVER BELOW YANKEE FORK, NEAR CLAYTON, ID (LAT 44 16 06 LONG 114 43 55)

DATE	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)
MAY , 1978 23...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 27...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 07...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 11...	8	15	1.4	3.7	15	.2	.6	58	0	48	.5	4.0

13297440 - LITTLE BOULDER CREEK AB BAKER LAKE NR CLAYTON ID (LAT 44 03 30 LONG 114 31 54)

DATE	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)
SEP , 1978 13...	0	3.0	.2	.5	11	.1	.1	15	0	12	6.0	1.0

13297445 - L BOULDER C BL BO. CHAIN LK OUTLET NR CLAYTON ID (LAT 44 03 56 LONG 114 32 15)

DATE	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)
SEP , 1978 13...	0	9.0	.6	.9	7	.1	.2	34	0	28	6.8	2.3

13297480 - BIG BOULDER CR AT LIVINGSTON MILL NR CLAYTON ID (LAT 44 07 47 LONG 114 31 22)

DATE	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)
JUL , 1978 12...	10	7.1	.1	1.2	12	.1	.2	10	0	8	1.0	4.3
SEP 13...	7	12	.6	.9	6	.1	.2	32	0	26	4.1	8.8

13297485 - JIM CREEK AT LIVINGSTON MILL NR CLAYTON ID (LAT 44 07 54 LONG 114 31 43)

DATE	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)
JUL , 1978 12...	15	21	2.1	1.3	4	.1	.6	56	0	46	1.1	17
SEP 13...	24	29	2.7	1.5	4	.1	.6	73	0	60	3.7	21

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)
SALMON RIVER BASIN--Continued												
13296500 - SALMON RIVER BELOW YANKEE FORK, NEAR CLAYTON, ID (LAT 44 16 06 LONG 114 43 55)												
MAY , 1978 23...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 27...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 07...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 11...	.6	.6	14	69	.09	156	.01	.01	--	--	--	--
13297440 - LITTLE BOULDER CREEK AB BAKER LAKE NR CLAYTON ID (LAT 44 03 30 LONG 114 31 54)												
SEP , 1978 13...	.2	.1	3.3	16	.02	.26	.01	.01	.01	.03	6.3	5
13297445 - L BOULDER C BL BO. CHAIN LK OUTLET NR CLAYTON ID (LAT 44 03 56 LONG 114 32 15)												
SEP , 1978 13...	.5	.1	8.4	39	.05	1.91	.02	.01	.01	.03	.8	20
13297480 - BIG BOULDER CR AT LIVINGSTON MILL NR CLAYTON ID (LAT 44 07 47 LONG 114 31 22)												
JUL , 1978 12...	.3	.1	7.7	27	.04	5.85	.07	.01	.02	.06	1.2	20
SEP 13...	.4	.1	8.6	48	.07	2.07	.02	.01	.01	.03	1.1	30
13297485 - JIM CREEK AT LIVINGSTON MILL NR CLAYTON ID (LAT 44 07 54 LONG 114 31 43)												
JUL , 1978 12...	.5	.1	14	87	.12	2.82	.35	.05	.02	.06	1.3	20
SEP 13...	.6	.1	15	107	.15	.95	.01	.03	.03	.09	.9	10

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

SALMON RIVER BASIN--Continued

DATE	BARIUM, DIS-SOLVED (UG/L AS BA)	ARSENIC DIS-SOLVED (UG/L AS AS)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)
13296500 - SALMON RIVER BELOW YANKEE FORK, NEAR CLAYTON, ID (LAT 44 16 06 LONG 114 43 55)											
MAY , 1978 23...	--	--	--	--	--	--	--	--	--	--	--
JUN 27...	--	--	--	--	--	--	--	--	--	--	--
AUG 07...	--	--	--	--	--	--	--	--	--	--	--
SEP 11...	--	--	--	--	--	--	--	--	--	--	--
13297440 - LITTLE BOULDER CREEK AB BAKER LAKE NR CLAYTON ID (LAT 44 03 30 LONG 114 31 54)											
SEP , 1978 13...	200	1	0	2	0	20	0	1	20	1	0
13297445 - L BOULDER C BL BO. CHAIN LK OUTLET NR CLAYTON ID (LAT 44 03 56 LONG 114 32 15)											
SEP , 1978 13...	200	1	0	20	0	0	0	1	40	0	0
13297480 - BIG BOULDER CR AT LIVINGSTON MILL NR CLAYTON ID (LAT 44 07 47 LONG 114 31 22)											
JUL , 1978 12...	100	0	0	4	1	0	2	0	40	3	0
SEP 13...	200	1	0	10	0	0	0	0	30	0	0
13297485 - JIM CREEK AT LIVINGSTON MILL NR CLAYTON ID (LAT 44 07 54 LONG 114 31 43)											
JUL , 1978 12...	200	1	0	2	11	0	3	2	40	2	2
SEP 13...	200	1	0	20	4	0	0	1	30	7	0

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
SALMON RIVER BASIN--Continued											
13296500 - SALMON RIVER BELOW YANKEE FORK, NEAR CLAYTON, ID (LAT 44 16 06 LONG 114 43 55)											
MAY , 1978											
23...	--	--	--	--	--	--	--	--	--	--	--
JUN											
27...	--	--	--	--	--	--	--	--	--	--	--
AUG											
07...	--	--	--	--	--	--	--	--	--	--	--
SEP											
11...	--	--	--	--	--	--	--	--	--	--	--
13297440 - LITTLE BOULDER CREEK AB BAKER LAKE NR CLAYTON ID (LAT 44 03 30 LONG 114 31 54)											
SEP , 1978											
13...	0	.0	3	0	1	0	60	.0	0	<1	--
13297445 - L BOULDER C BL BO. CHAIN LK OUTLET NR CLAYTON ID (LAT 44 03 56 LONG 114 32 15)											
SEP , 1978											
13...	0	.0	8	0	0	0	100	.0	0	<1	--
13297480 - BIG BOULDER CR AT LIVINGSTON MILL NR CLAYTON ID (LAT 44 07 47 LONG 114 31 22)											
JUL , 1978											
12...	0	.0	0	4	0	0	60	--	20	12	2.6
SEP											
13...	0	.0	11	0	3	0	70	.6	0	<1	--
13297485 - JIM CREEK AT LIVINGSTON MILL NR CLAYTON ID (LAT 44 07 54 LONG 114 31 43)											
JUL , 1978											
12...	10	.0	0	6	2	0	50	--	400	69	2.2
SEP											
13...	10	.0	2	3	2	0	60	1.6	210	<1	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
KOOTENAI RIVER BASIN											
12305000 - KOOTENAI RIVER AT LEONIA IDAHO (LAT 48 37 04 LONG 116 02 47)											
OCT , 1977 04...	1115	20600	243	6.5	11.0	APR , 1978 05...	0910	9290	--	8.0	5.0
DEC 07...	1300	--	234	3.5	5.0	MAY 25...	0905	12900	125	9.0	6.5
JAN , 1978 16...	1005	5330	187	.5	2.0	JUL 26...	1155	6280	195	28.5	16.0
MAR 09...	0945	5330	253	5.5	4.0	SEP 12...	0920	10400	199	14.5	13.5
12305500 - BOULDER CREEK NR LEONIA ID (LAT 48 35 54 LONG 116 05 30)											
OCT , 1977 05...	1000	19	20	7.5	6.0						
12306500 - MOYIE RIVER AT EASTPORT, IDAHO (LAT 48 59 58 LONG 116 10 43)											
OCT , 1977 03...	1040	87	37	3.5	5.0	MAY , 1978 17...	1200	3810	33	8.5	7.5
DEC 02...	1400	145	43	2.0	.0	JUL 28...	1000	264	42	18.5	16.5
MAR , 1978 09...	1435	91	56	8.5	5.0	SEP 08...	1130	146	44	12.0	12.0
APR 12...	1345	972	41	13.5	7.0						
12306800 - ROUND PRAIRIE CREEK NEAR EASTPORT, IDAHO (LAT 48 57 53 LONG 116 11 52)											
SEP , 1978 08...	1240	3.1	62	14.0	14.5						
12307500 - MOYIE RIVER AT EILEEN, IDAHO (LAT 48 46 27 LONG 116 09 26)											
OCT , 1977 03...	1330	131	38	11.5	4.5	APR , 1978 13...	1205	1200	44	9.5	6.0
DEC 05...	1330	177	64	2.0	.0	MAY 18...	1215	4770	37	18.5	9.5
JAN , 1978 13...	1330	172	46	.0	.0	JUL 28...	1350	378	46	23.5	20.5
MAR 08...	1500	171	59	5.0	5.0	SEP 12...	1425	199	55	21.0	14.0
12310800 - TRAIL CREEK AT NAPLES, IDAHO (LAT 48 34 28 LONG 116 23 20)											
MAY , 1978 10...	1305	52	30	14.5	9.0	SEP , 1978 11...	1445	1.7	64	20.5	16.5
12313500 - BALL CREEK NEAR BONNERS FERRY, IDAHO (LAT 48 47 40 LONG 116 24 54)											
OCT , 1977 03...	1415	9.9	29	8.5	6.5	MAY , 1978 18...	1445	220	29	17.5	6.0
DEC 01...	1440	20	24	.0	1.0	JUL 27...	1140	25	24	23.5	15.5
JAN , 1978 17...	1135	8.9	50	1.5	1.0	SEP 11...	1325	6.3	30	19.0	11.0
APR 13...	1435	54	30	12.5	3.5						

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

KOOTENAI RIVER BASIN--Continued

12316800 - MISSION CREEK NEAR COPELAND, IDAHO (LAT 48 55 54 LONG 116 20 00)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1977						MAY , 1978					
03...	1005	4.8	54	3.5	5.5	16...	1435	281	26	14.5	7.0
NOV						17...	1355	224	22	18.0	8.0
14...	1100	7.1	34	6.0	3.5	JUL					
JAN , 1978						10...	1200	20	27	18.5	13.5
11...	1435	5.0	32	-2.0	.0	SEP					
MAR						08...	1345	6.3	35	14.0	12.5
07...	1220	4.5	35	7.0	1.5						

12321000 - SMITH CREEK NEAR PORTHILL IDAHO (LAT 48 57 40 LONG 116 33 15)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
SEP , 1978					
11...	1150	65	16	18.5	11.0

12321500 - BOUNDARY CREEK NEAR PORTHILL, IDAHO (LAT 48 59 50 LONG 116 34 05)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1977						MAY , 1978					
03...	1200	36	45	8.0	6.0	16...	1240	1110	22	16.0	6.5
DEC						JUL					
01...	1230	54	41	2.0	.0	10...	1020	158	26	18.5	14.0
JAN , 1978						SEP					
10...	1355	39	38	1.0	1.0	11...	1050	82	34	17.5	10.5
APR											
12...	1110	235	30	13.5	4.0						

PEND OREILLE RIVER BASIN

12336000 - NEVADA CREEK NEAR FINN, MT (LAT 46 48 00 LONG 112 48 00)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
SEP , 1978					
09...	1900	883	30	19.0	15.5

12392000 - CLARK FORK AT WHITEHORSE RAPIDS, NEAR CABINET, I (LAT 48 05 18 LONG 116 04 16)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1977						MAY , 1978					
06...	0950	14800	220	9.5	10.0	22...	1300	52200	130	10.0	9.5
DEC						JUL					
08...	1030	14900	181	4.0	7.5	21...	0915	35100	155	19.0	17.0
FEB , 1978						SEP					
08...	1500	22100	169	8.5	2.0	07...	1140	17400	252	19.0	19.0
APR											
11...	1240	31200	150	16.0	17.0						

12392100 - TRAPPER CREEK NEAR CLARK FORK, IDAHO (LAT 48 15 57 LONG 116 07 00)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
MAY , 1978						AUG , 1978					
22...	1140	31	10	10.0	4.0	11...	0950	.01	22	23.0	21.0

12392155 - LIGHTNING CR AT CLARK FORK ID (LAT 48 08 52 LONG 116 11 24)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
AUG , 1978					
11...	1040	25	25	23.0	19.0

12392350 - GROUSE CR NR COLBURN ID (LAT 48 20 36 LONG 116 26 10)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
AUG , 1978					
11...	1230	6.2	34	23.0	19.0

12392450 - RAPID LIGHTNING CR NR COLBURN ID (LAT 48 21 55 LONG 116 24 05)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
AUG , 1978					
11...	1200	32	35	23.0	19.0

12392800 - HORNBY CREEK NEAR DOVER IDAHO (LAT 48 15 10 LONG 116 37 50)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
AUG , 1978					
11...	1330	.98	33	25.0	19.0

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

P PEND OREILLE RIVER BASIN--Continued

12392854 - BRICKEL CREEK NEAR SPIRIT LAKE IDAHO (LAT 47 56 10 LONG 116 56 59)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
AUG , 1978					
30...	1415	3.1	61	25.5	E15.0

12392892 - BLANCHARD CR NR BLANCHARD ID (LAT 47 59 32 LONG 117 04 14)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
AUG , 1978					
30...	1300	3.4	61	25.5	15.0

12392950 - INDIAN CREEK NEAR COOLIN IDAHO (LAT 48 37 37 LONG 116 49 14)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
AUG , 1978					
29...	1010	19	15	19.5	9.5

12393600 - BINARCH CREEK NEAR COOLIN IDAHO (LAT 48 28 10 LONG 116 55 20)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
AUG , 1978					
29...	1335	3.3	42	20.0	8.0

12394000 - PRIEST R AT OUTLET OF PRIEST LK, NR COOLIN, ID (LAT 48 27 07 LONG 116 53 58)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
NOV , 1977						MAR , 1978					
02...	1400	913	46	5.0	6.5	30...	1340	1040	30	11.0	4.5
DEC						MAY					
21...	1200	683	33	.0	3.0	09...	1340	3340	47	16.0	9.5
FEB , 1978						AUG					
14...	1250	423	--	1.0	1.5	29...	1215	289	46	24.0	20.0

12395500 - PEND OREILLE RIVER AT NEWPORT WA (LAT 48 11 00 LONG 117 02 00)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
NOV , 1977						MAY , 1978					
03...	1245	26600	183	5.0	8.5	15...	1035	47200	153	11.0	10.5
DEC						JUL					
22...	1215	21000	--	5.0	2.5	20...	0830	26400	85	14.0	16.0
FEB , 1978						AUG					
15...	0945	21100	202	-.5	.5	30...	0855	13800	157	14.0	17.5
APR											
05...	0900	30400	186	5.0	6.0						

SPOKANE RIVER BASIN

12411000 - COEUR D'ALENE R AB SHOSHONE CK NR PRICHARD, IDA (LAT 47 42 30 LONG 115 58 35)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
NOV , 1977						JUN , 1978					
09...	1230	145	55	6.5	3.5	07...	1205	825	60	23.5	14.0
FEB , 1978						JUL					
22...	0900	296	--	4.0	2.0	11...	1430	237	56	17.0	14.5
APR											
04...	1415	2430	40	11.5	6.0						

12413100 - BOULDER CREEK AT MULLAN IDAHO (LAT 47 28 10 LONG 115 47 44.01)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
JUN , 1978					
08...	0705	56	34	12.0	5.0

12413140 - PLACER CREEK AT WALLACE, IDAHO (LAT 47 27 50 LONG 115 56 10)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
NOV , 1977						APR , 1978					
10...	0920	6.9	98	4.5	4.5	05...	1445	88	69	4.0	4.5
JAN , 1978						JUN					
04...	1355	23	64	1.0	6.0	08...	0815	77	58	12.0	7.0
FEB						JUL					
22...	1245	16	--	6.0	3.5	12...	0900	16	77	13.0	8.5

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

SPOKANE RIVER BASIN--Continued

12413150 - S FK COEUR D'ALENE R AT SILVERTON, ID (LAT 47 28 20 LONG 115 57 00)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
NOV , 1977						JUN , 1978					
10...	1015	66	214	4.0	4.5	07...	1525	953	51	24.0	11.5
JAN , 1978						JUL					
04...	1505	158	211	1.0	2.0	12...	1020	187	111	17.0	12.0
FEB											
22...	1500	102	165	5.5	4.5						

12413850 - EVANS CREEK NR ST MARIES ID (LAT 47 26 55 LONG 116 34 02)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
AUG , 1978					
14...	1630	2.6	29	24.0	16.0

12413900 - ST JOE RIVER AB N FK ST JOE RIVER NR AVERY ID (LAT 47 14 29 LONG 115 45 20)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
AUG , 1978					
15...	1000	370	64	15.5	13.5

12413950 - N FK ST JOE RIVER AT MOUTH NR AVERY ID (LAT 47 15 08 LONG 115 49 47)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
AUG , 1978					
15...	1045	84	78	16.0	13.5

12414400 - E FK BIG CREEK NR CALDER ID (LAT 47 18 07 LONG 116 07 05)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
JUN , 1978					
08...	1315	54	45	23.5	8.5

12414500 - ST. JOE RIVER AT CALDER, IDAHO (LAT 47 16 30 LONG 116 11 15)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
NOV , 1977						JUN , 1978					
09...	1135	774	51	2.0	2.0	08...	1625	6750	30	26.0	11.0
DEC						JUL					
29...	1210	1810	66	2.5	1.0	13...	1455	1460	51	25.5	17.0
FEB , 1978						AUG					
23...	1015	1180	--	2.5	2.0	15...	1345	656	58	15.0	17.0
APR											
06...	1420	5330	50	13.5	6.5						

12414600 - BEAR CR AT CALDER ID (LAT 47 17 00 LONG 116 11 30)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
AUG , 1978					
15...	1535	1.9	63	15.0	14.5

12414650 - HUGUS CR NR CALDER ID (LAT 47 17 00 LONG 116 15 40)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
AUG , 1978					
15...	1600	3.7	83	14.5	14.5

12414700 - TROUT CR NR CALDER ID (LAT 47 17 45 LONG 116 15 10)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
AUG , 1978					
15...	1500	9.2	50	14.5	14.0

12414750 - FALLS CR NR ST JOE ID (LAT 47 19 10 LONG 116 17 30)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
AUG , 1978					
15...	1630	12	68	14.5	13.5

12414800 - BOND CREEK AT ST. JOE, IDAHO (LAT 47 18 30 LONG 116 20 30)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
AUG , 1978					
15...	1700	1.4	73	14.5	15.5

12414850 - STREET CREEK NEAR ST. MARIES, IDAHO (LAT 47 20 20 LONG 116 28 40)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
AUG , 1978					
15...	1715	.35	61	14.5	13.5

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

SPOKANE RIVER BASIN--Continued

12415050 - THORN CREEK NEAR ST. MARIES, IDAHO (LAT 47 17 00 LONG 116 31 00)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
AUG , 1978					
16...	1010	6.6	74	17.0	13.5

12415100 - CHERRY CREEK NEAR ST. MARIES, IDAHO (LAT 47 19 00 LONG 116 36 47)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
AUG , 1978					
16...	1030	.29	63	14.0	14.0

12415150 - BENEWAH CREEK NR ST MARIES ID (LAT 47 20 10 LONG 116 40 50)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
AUG , 1978					
16...	1050	2.8	70	14.0	13.5

12415250 - PLUMMER CREEK NR PLUMMER ID (LAT 47 22 00 LONG 116 47 00)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
AUG , 1978					
16...	1130	.12	74	16.0	17.0

12415300 - MICA CREEK NEAR COEUR D ALENE IDAHO (LAT 47 36 00 LONG 116 53 00)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
AUG , 1978					
16...	1420	2.0	79	15.0	15.0

12415400 - COUGAR CREEK NEAR COEUR D ALENE IDAHO (LAT 47 39 20 LONG 116 50 30)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
AUG , 1978					
16...	1450	1.7	63	12.0	13.5

12418000 - RATHDRUM PRAIRIE CANAL NR HUETTER, IDAHO (LAT 47 42 35 LONG 116 52 05)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
JUN , 1978						AUG , 1978					
20...	1100	48	50	26.0	18.0	28...	1205	30	53	25.0	21.0
JUL											
18...	1300	48	49	25.5	21.0						

12419100 - FISH CREEK NEAR RATHDRUM IDAHO (LAT 47 53 08 LONG 116 57 06)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
AUG , 1978					
30...	1450	2.3	63	25.0	15.0

12422950 - HANGMAN CR NR TENSED ID (LAT 47 11 40 LONG 117 01 42)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
AUG , 1978					
16...	1235	.44	199	16.0	16.0

LITTLE CANYON CREEK BASIN

13155300 - L CANYON CR AT STOUT CROSSING NR GLENNS FERRY ID (LAT 43 09 14 LONG 115 18 32)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
MAR , 1978						MAY , 1978					
18...	1300	39	70	8.0	9.5	24...	1630	32	50	9.5	8.5
APR						SEP					
23...	1735	31	70	15.0	10.0	18...	1030	1.3	64	.0	5.0

BRUNEAU RIVER BASIN

13162410 - BUCK CREEK NEAR MURPHY HOT SPRINGS, IDAHO (LAT 42 00 00 LONG 115 25 00)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
SEP , 1978					
22...	1015	3.8	328	6.0	6.0

13162500 - E FK JARBRIDGE RIVER NR THREE CREEK ID (LAT 42 02 00 LONG 115 22 20)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
SEP , 1978					
22...	1255	33	64	14.5	7.0

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

BOISE RIVER BASIN

13184200 - ROARING RIVER NEAR ROCKY BAR, IDAHO (LAT 43 42 20 LONG 115 27 50)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
SEP , 1978 11...	1120	24	52	11.5	8.0						

13184500 - M FK BOISE RIVER NR TWIN SPRING ID (LAT 43 42 45 LONG 115 37 50)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1977 27...	0917	139	89	2.0	8.0	MAY , 1978 15...	1200	2150	34	9.0	6.5
DEC 13...	1315	246	88	1.0	3.0	JUN 20...	1300	2090	36	21.0	7.5
FEB , 1978 01...	1210	208	100	-.5	.0	AUG 01...	1425	529	60	31.5	16.5
MAR 13...	1205	452	82	2.0	3.5	SEP 11...	1455	368	72	12.5	11.0
APR 17...	1400	980	93	6.5	5.5						

13196500 - BANNOCK CREEK NEAR IDAHO CITY, IDAHO (LAT 43 48 30 LONG 115 46 25)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
SEP , 1978 26...	0930	.65	141	7.5	7.5						

13199800 - GRIMES CREEK AT MOUTH NR IDAHO CITY, IDAHO (LAT 43 43 36 LONG 115 57 09)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
SEP , 1978 26...	1030	29	116	12.0	10.5						

13200500 - ROBIE CREEK NR ARROWROCK DAM ID (LAT 43 37 49 LONG 115 59 55)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
SEP , 1978 26...	1130	2.0	164	13.0	8.0						

13202000 - BOISE RIVER NEAR BOISE, IDAHO (LAT 43 36 33 LONG 116 12 27.01)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1977 26...	0950	118	113	8.5	11.0	JUN , 1978 15...	0910	4500	65	13.0	12.5
DEC 22...	1115	87	125	3.5	3.5	AUG 17...	1140	4390	43	14.5	15.5
APR , 1978 13...	1205	5990	77	13.5	7.5						

13204800 - COTTONWOOD CREEK NEAR BOISE, IDAHO (LAT 43 36 59 LONG 116 09 30)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
JAN , 1978 12...	1230	6.7	113	8.5	6.0	SEP , 1978 28...	1330	.47	141	19.0	17.0

13205500 - BOISE RIVER AT BOISE, IDAHO (LAT 43 36 33 LONG 116 12 27)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
DEC , 1977 14...	1400	143	114	11.5	8.0	APR , 1978 24...	1400	5350	82	19.5	9.0
FEB , 1978 03...	1015	126	113	7.5	4.0	MAY 04...	1245	4820	63	8.5	8.5
MAR 09...	1420	97	84	10.5	9.5	18...	1410	2290	61	18.0	10.5
15...	1420	97	84	10.5	9.5	AUG 03...	1050	1320	64	29.0	14.5
APR 04...	1420	2310	61	18.0	10.5	SEP 15...	1100	506	67	15.0	14.5
10...	1355	3860	97	15.0	10.0						

13210050 - BOISE RIVER NR MIDDLETON ID (LAT 43 41 06 LONG 116 34 22.01)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1977 26...	1323	242	264	14.5	14.0	MAY , 1978 22...	1430	--	80	16.0	13.0
DEC 14...	1100	298	201	10.0	8.0	JUN 15...	1430	355	114	22.0	17.0
FEB , 1978 03...	1030	263	232	5.0	6.5	AUG 08...	1155	221	157	28.0	20.0
MAR 17...	1100	260	174	13.0	11.5	SEP 20...	1500	186	191	18.0	13.5
APR 21...	1515	--	99	13.5	9.5						

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

BOISE RIVER BASIN--Continued

13210300 - BRYANS RUN NEAR BOISE, IDAHO (LAT 43 27 02 LONG 116 04 08)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
JAN , 1978 12...	1030	3.6	72	6.0	3.5

SNAKE RIVER MAIN STEM

13213100 - SNAKE R AT NYSSA OR (LAT 43 52 34 LONG 116 59 02)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1977 13...	1100	9290	658	11.5	12.5	MAY , 1978 01...	0925	29200	363	13.5	12.5
NOV 14...	1200	8830	424	8.0	8.0	22...	1045	11200	447	12.0	18.0
DEC 29...	1045	--	566	2.5	5.0	JUN 21...	1300	8838	520	25.0	21.0
FEB , 1978 13...	1100	10100	561	2.0	4.5	AUG 09...	1150	--	389	31.5	24.0
MAR 22...	1000	12400	503	12.0	11.0	15...	1030	8010	454	20.5	21.0
						SEP 20...	1020	11500	230	12.0	13.0

PAYETTE RIVER BASIN

13234300 - FIVEMILE CREEK NEAR LOWMAN, IDAHO (LAT 44 06 20 LONG 115 27 30)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
SEP , 1978 12...	1050	9.6	64	12.0	6.5

13236000 - DEADWOOD RESV NR LOWMAN, ID (LAT 44 17 38 LONG 115 38 41)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
JUN , 1978 14...	0930	457	44	16.0	6.0

13236500 - DEADWOOD RIVER BL DEADWOOD RF NR LOWMAN ID (LAT 44 17 30 LONG 115 38 33)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
NOV , 1977 04...	1235	3.3	52	10.0	7.0	AUG , 1978 03...	1330	868	40	27.0	7.0
FEB , 1978 17...	1320	2.6	87	-5.0	4.0	29...	1325	810	31	22.0	9.0
JUN 14...	0930	457	44	16.0	6.0	SEP 20...	1100	973	39	3.5	13.0

13237300 - DANSKIN CREEK NEAR GRIMES PASS, IDAHO (LAT 44 03 36 LONG 115 49 06)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1977 05...	1140	1.5	194	10.0	5.5	SEP , 1978 27...	1310	2.3	219	11.0	11.0

13237600 - CABIN CR NR SMITHS FERRY IDAHO (LAT 44 20 53 LONG 115 47 21)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1977 05...	1400	.06	88	18.5	5.0	SEP , 1978 27...	1040	.11	98	8.0	7.5

13238300 - DEEP CREEK NEAR MCCALL, IDAHO (LAT 45 06 00 LONG 116 02 18)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1977 29...	1205	6.0	23	1.5	3.0

13240000 - LAKE FK PAYETTE RIVER AB JUMBO C NR MCCALL ID (LAT 44 54 50 LONG 115 59 10)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1977 29...	1020	60	25	3.5	4.0	MAY , 1978 05...	0945	279	21	2.0	2.0
DEC 13...	1140	68	--	1.0	.5	JUN 07...	1530	987	12	25.0	5.0
MAR , 1978 07...	--	36	48	4.5	2.5	JUL 19...	1615	222	17	21.0	10.5
APR 05...	0940	285	21	2.0	2.0	SEP 13...	1240	56	28	8.0	10.0

13245400 - TRIPOD CREEK AT SMITHS FERRY, IDAHO (LAT 44 17 55 LONG 116 05 17)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
MAR , 1978 23...	1000	18	34	7.5	1.0	JUN , 1978 05...	1130	26	32	25.0	9.0
APR 28...	0845	--	31	9.0	2.5	SEP 25...	1130	.54	62	17.5	8.5

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

PAYETTE RIVER BASIN--Continued

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
13246000 - N FK PAYETTE RIVER NR BANKS ID (LAT 44 06 50 LONG 116 06 25)											
NOV . 1977 03...	1005	194	51	5.0	6.0	APR . 1978 28...	0945	2050	39	11.0	7.5
DEC 19...	1310	415	52	.5	1.0	JUN 13...	1500	3370	32	27.0	15.0
JAN . 1978 30...	1540	489	34	4.0	1.0	JUL 26...	1230	1030	40	30.0	21.0
MAR 24...	1020	1220	44	9.0	4.5	SEP 18...	1130	967	37	11.0	11.5
13247000 - PORTER CREEK NEAR GARDENA, IDAHO (LAT 43 56 00 LONG 116 11 00)											
OCT . 1977 05...	1005	1.1	195	9.0	7.5	SEP . 1978 27...	1430	2.2	172	14.5	16.5
13247500 - PAYETTE RIVER NR HORSESHOE BEND, IDA (LAT 43 56 33 LONG 116 11 45)											
NOV . 1977 03...	1225	727	--	--	--	APR . 1978 28...	1330	6070	51	14.0	7.5
04...	0955	674	87	10.0	6.0	JUN 13...	1200	9140	38	24.0	12.0
DEC 16...	1100	4260	47	7.5	3.0	JUL 26...	0845	3470	50	24.0	17.0
JAN . 1978 30...	1205	1223	42	1.0	1.5	SEP 18...	0830	2540	52	8.0	11.0
MAR 24...	1355	4480	57	14.0	6.0						
13248900 - COTTONWOOD CREEK NEAR HORSESHOE BEND, IDAHO (LAT 43 53 35 LONG 116 12 09)											
OCT . 1977 04...	1245	.01	436	18.0	12.0	JUN . 1978 13...	1630	.20	285	31.0	19.0
13248970 - JOHNSON CREEK NEAR MONTOUR, IDAHO (LAT 43 55 03 LONG 116 21 13)											
OCT . 1977 04...	1200	.06	374	18.5	12.5	SEP . 1978 27...	1530	.67	326	19.5	17.5
13249500 - PAYETTE RIVER NEAR EMMETT, IDAHO (LAT 43 55 50 LONG 116 26 30)											
NOV . 1977 07...	1247	842	104	9.0	11.0	APR . 1978 19...	1300	4430	70	8.0	20.0
DEC 21...	1100	1120	74	-1.0	2.5	MAY 15...	1250	7570	51	14.0	11.0
FEB . 1978 02...	1100	1590	103	6.0	3.0	AUG 10...	1350	1860	48	32.0	21.5
MAR 20...	1210	3340	69	18.0	9.0	SEP 21...	1400	1910	62	19.0	12.0

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

PAYETTE RIVER BASIN--Continued

13250600 - BIG WILLOW CREEK NEAR EMMETT, IDAHO (LAT 44 04 25 LONG 116 29 10)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
NOV , 1977						MAY , 1978					
07...	1015	6.5	171	7.5	7.0	15...	1050	13	144	11.0	14.0
DEC						JUN					
21...	1615	20	102	-1.0	2.5	13...	1510	6.2	--	--	18.0
FEB , 1978						AUG					
02...	1700	26	116	4.5	5.0	14...	1205	4.2	187	19.5	15.0
09...	1025	266	95	5.5	4.0	SEP					
MAR						21...	1220	5.3	164	18.5	10.5
20...	1000	47	96	18.5	7.0						
APR											
19...	0950	69	114	13.0	8.5						

13250650 - FOURMILE CREEK NEAR EMMETT, IDAHO (LAT 44 04 24 LONG 116 29 13)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
SEP , 1978					
21...	1015	.12	179	16.5	8.0

WEISER RIVER BASIN

13251300 - WEST BRANCH WEISER RIVER NR TAMARACK, IDAHO (LAT 45 01 14 LONG 116 26 06)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
OCT , 1977					
29...	1640	1.2	115	8.0	5.5

13253500 - WEISER RIVER AT STARKEY, IDAHO (LAT 44 51 00 LONG 116 26 40)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
SEP , 1978					
29...	1430	17	141	19.0	15.0

13260000 - PINE CREEK NEAR CAMBRIDGE, IDAHO (LAT 44 35 23 LONG 116 44 12)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
SEP , 1978					
29...	0930	8.0	137	8.0	10.5

13261000 - LITTLE WEISER RIVER NEAR INDIAN VALLEY, IDAHO (LAT 44 29 35 LONG 116 23 45)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
SEP , 1978					
28...	1500	16	106	23.0	13.5

13261670 - DIXIE CREEK NEAR CAMBRIDGE, IDAHO (LAT 44 29 56 LONG 116 36 38)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
FEB , 1978						JUN , 1978					
02...	1300	7.8	--	--	--	09...	1230	<.10	384	25.5	21.5

13261880 - KEITHLY CREEK, AB. DIV., NR. MIDVALE, IDAHO (LAT 44 31 02 LONG 116 49 53)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
OCT , 1977						SEP , 1978					
04...	1645	3.0	140	13.0	11.0	28...	1110	5.7	131	20.0	11.0

13263700 - CRANE CR AB RES NR CRANE ID (LAT 44 24 20 LONG 116 31 30)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
OCT , 1977						SEP , 1978					
04...	1510	.13	211	22.5	12.5	28...	1300	.20	230	23.0	16.0

13266500 - MONROE CREEK ABOVE SHEEP CREEK NEAR WEISER, I (LAT 44 19 50 LONG 116 55 50)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
OCT , 1977						SEP , 1978					
04...	1300	.80	268	18.0	12.5	28...	0900	.33	403	12.0	12.5

BROWNLEE CREEK BASIN

13289600 - E BROWNLEE CREEK AT BROWNLEE RANGER STATION ID (LAT 44 44 08 LONG 116 50 15)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
SEP , 1978					
26...	1700	2.8	207	22.5	12.0

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WILDHORSE RIVER BASIN

13289800 - BEAR CREEK NEAR BEAR IDAHO (LAT 44 59 40 LONG 116 41 00)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
SEP , 1978 29...	1145	5.2	103	25.0	11.0

PINE CREEK BASIN

13290190 - PINE CREEK NEAR OXBOW OREGON (LAT 44 57 13 LONG 116 52 21)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1977 28...	1335	42	166	10.5	8.5	APR , 1978 19...	1630	672	94	17.5	10.5
NOV 15...	1330	86	108	10.5	7.5	MAY 23...	1440	940	68	12.5	8.0
DEC 29...	1530	230	122	2.5	4.0	JUN 21...	1500	754	70	21.0	10.5
JAN , 1978 25...	1530	408	110	4.5	3.5	JUL 26...	1400	97	129	36.5	22.0
FEB 16...	1545	357	104	8.5	4.0	AUG 22...	1350	103	132	20.0	16.5
MAR 28...	0845	1140	73	12.0	6.0	SEP 26...	1640	100	116	29.5	17.0

SALMON RIVER BASIN

13292200 - SALMON RIVER AT HEAD NR OBSIDIAN ID (LAT 43 53 03 LONG 114 45 47)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
SEP , 1978 14...	0950	9.1	149	4.5	4.0

13292400 - BEAVER CREEK NEAR STANLEY, IDAHO (LAT 43 55 10 LONG 114 48 48)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
SEP , 1978 14...	1015	5.0	55	3.0	5.0

13292500 - SALMON RIVER NEAR OBSIDIAN, IDAHO (LAT 43 57 57 LONG 114 48 01)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
SEP , 1978 14...	1100	60	161	6.5	5.5

13293000 - ALTURAS LAKE CREEK NR OBSIDIAN IDAHO (LAT 43 57 00 LONG 114 50 00)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
SEP , 1978 25...	1255	28	41	21.0	14.0

13293900 - REDFISH LAKE CREEK BL LAKE NR STANLEY ID (LAT 44 09 20 LONG 114 54 40)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
SEP , 1978 25...	1445	67	37	24.0	14.5

13295000 - VALLEY CREEK AT STANLEY, IDAHO (LAT 44 13 21 LONG 114 55 49)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
SEP , 1978 25...	1620	115	76	24.0	14.5

13295500 - SALMON RIVER BL VALLEY CREEK AT STANLEY ID (LAT 44 14 00 LONG 114 55 00)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
SEP , 1978 26...	0920	520	81	5.0	6.5

13297000 - WARM SPRINGS CREEK AT ROBINSON BAR NR CLAYTON ID (LAT 44 14 50 LONG 114 40 11)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
SEP , 1978 26...	1105	78	154	17.0	6.5

13297100 - PEACH CREEK NEAR CLAYTON, IDAHO (LAT 44 15 50 LONG 114 38 50)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
SEP , 1978 26...	1230	4.4	237	20.0	7.0

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

SALMON RIVER BASIN--Continued

13297300 - HOLMAN CREEK NEAR CLAYTON, IDAHO (LAT 44 14 52 LONG 114 31 43)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
SEP , 1978					
26...	1415	.68	283	24.0	8.0

13297330 - THOMPSON CREEK NEAR CLAYTON IDAHO (LAT 44 15 36 LONG 114 30 50)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1977						MAY , 1978					
18...	1335	2.9	220	19.5	8.0	24...	1050	93	101	22.5	4.0
DEC						JUN					
10...	1045	3.3	192	6.0	2.0	27...	1950	55	76	18.0	9.5
JAN , 1978						AUG					
22...	1055	3.3	198	2.0	1.0	11...	1645	7.3	140	26.0	17.0
APR						SEP					
18...	1435	23	141	12.0	8.5	12...	1120	6.8	161	13.0	8.5

13297350 - BRUNO CREEK NEAR CLAYTON, IDAHO (LAT 44 17 56 LONG 114 28 50)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1977						MAY , 1978					
18...	1445	.14	414	22.0	4.5	24...	1235	6.4	152	6.5	5.0
DEC						JUN					
10...	1200	.12	376	1.0	5.0	26...	1530	5.3	161	18.0	8.5
JAN , 1978						AUG					
22...	1210	.12	379	1.0	3.5	11...	1145	1.0	--	21.0	14.0
MAR						SEP					
12...	1145	.18	347	5.0	5.5	12...	1430	.51	304	9.5	8.0
APR											
19...	0930	1.4	260	8.0	5.0						

13297355 - SQUAW CREEK BL BRUNO CREEK NR CLAYTON ID (LAT 44 17 26 LONG 114 28 15)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1977						MAY , 1978					
18...	1515	7.0	240	22.0	8.0	24...	1510	164	95	13.0	5.5
DEC						JUN					
10...	1315	8.9	207	7.0	1.0	26...	1720	103	84	19.5	9.5
JAN , 1978						AUG					
22...	1340	8.2	20[illegible]	.5	.5	11...	0930	15	134	16.0	10.5
MAR						SEP					
12...	1400	13	180	.5	2.5	12...	1550	16	148	11.0	9.0
APR											
19...	1010	36	135	5.5	3.5						

13297500 - BIG BOULDER CREEK NEAR CLAYTON, IDAHO (LAT 44 05 58 LONG 114 26 24)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
SEP , 1978					
13...	1730	26	87	8.5	7.0

13298000 - E FK SALMON RIVER NR CLAYTON ID (LAT 44 13 29 LONG 114 17 06)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1977						JUN , 1978					
19...	1230	74	216	9.0	6.0	07...	1000	1320	--	--	--
DEC						JUL					
11...	1345	103	188	2.0	.5	12...	1500	844	111	29.0	11.5
JAN , 1978						AUG					
23...	1145	62	68	3.0	.5	10...	1645	279	156	28.5	16.5
MAR						SEP					
14...	1315	86	186	1.0	1.5	12...	1750	281	176	11.0	9.5
APR											
19...	1620	123	199	19.0	10.5						

13298400 - BAYHORSE CREEK NEAR CHALLIS IDAHO (LAT 44 22 53 LONG 114 15 52.01)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
SEP , 1978					
26...	1605	7.9	217	23.0	9.0

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
SALMON RIVER BASIN--Continued											
13298500 - SALMON RIVER NEAR CHALLIS, IDAHO (LAT 44 22 43 LONG 114 15 18)											
JUN , 1978						AUG , 1978					
07...	1330	6470	93	16.5	8.5	21...	1400	1070	101	27.5	15.0
29...	1305	4970	94	27.5	11.5						
13301500 - BIG CREEK AB DIV NR PATTERSON ID (LAT 44 26 38 LONG 113 36 25)											
SEP , 1978											
13...	0940	55	69	8.0	4.5						
13301700 - HORSE CREEK AB DIV NR MAY ID (LAT 44 36 55 LONG 113 48 25)											
APR , 1978						SEP , 1978					
20...	1035	15	38	21.0	4.0	13...	1200	12	42	11.0	6.5
JUN											
29...	0915	65	23	17.0	5.0						
13302180 - LAKE CREEK AB WILLIAMS LAKE NR SALMON IDAHO (LAT 45 01 00 LONG 113 59 38)											
SEP , 1978											
29...	1150	4.3	125	14.0	7.0						
13303000 - TEXAS CREEK NEAR LEADORE, IDAHO (LAT 44 35 10 LONG 113 19 45)											
SEP , 1978											
28...	0925	24	291	11.0	8.0						
13304875 - HAYDEN CREEK BL BEAR VALLEY CREEK NR LEMHI ID (LAT 44 46 43 LONG 113 42 21)											
SEP , 1978											
28...	1125	89	66	10.5	6.0						
13305700 - DAHLONEGA CREEK AT GIBBONSVILLE IDAHO (LAT 45 32 50 LONG 113 55 40)											
SEP , 1978											
28...	1650	12	117	18.0	9.5						
13305800 - HUGHES CREEK NEAR NORTH FORK, IDAHO (LAT 45 31 12 LONG 114 01 59)											
APR , 1978						SEP , 1978					
21...	1510	23	57	6.0	5.5	28...	1515	6.7	64	17.0	9.5
13306000 - N FK SALMON RIVER AT NORTH FORK ID (LAT 45 24 26 LONG 113 59 37)											
SEP , 1978											
27...	1630	84	115	26.0	13.0						
13306320 - PANTHER CREEK AT COPPER CREEK R S NR COBALT ID (LAT 45 04 07 LONG 114 16 11)											
SEP , 1978											
27...	1110	60	99	15.0	7.0						
13306330 - BLACKBIRD CREEK BL MEADOW CREEK NR BLACKBIRD ID (LAT 45 06 59 LONG 114 20 30)											
SEP , 1978											
27...	1220	1.2	476	16.0	8.0						
13306440 - PANTHER CR BL BIG DEER CR NR BLACKBIRD ID (LAT 45 10 38 LONG 114 18 53)											
SEP , 1978											
27...	1425	112	95	21.0	10.0						
13306500 - PANTHER CREEK NR SHOUP, IDAHO (LAT 45 18 22 LONG 114 23 31.01)											
OCT , 1977											
20...	1130	85	91	4.0	4.0						

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
SALMON RIVER BASIN--Continued											
13307050 - OWL CREEK NEAR SHOUP IDAHO (LAT 45 19 07 LONG 114 26 52)											
SEP . 1978 14...	1220	21	75	15.0	10.0						
13309220 - M FK SALMON RIVER NR YELLOW PINE ID (LAT 44 43 11 LONG 115 00 48)											
OCT . 1977 04...	1115	474	--	14.0	5.5	MAY . 1978 03...	1130	3250	64	15.0	7.0
NOV 10...	0920	423	120	-3.5	.0	JUN 09...	0930	8730	45	16.0	7.5
JAN . 1978 23...	1420	364	98	1.0	.0	JUL 25...	0915	1670	76	26.0	12.5
MAR 10...	1120	500	110	3.5	3.0	SEP 13...	1110	917	109	11.5	9.0
13310470 - S FK SALMON R NR STOLLE NDW GS ID (LAT 44 36 15 LONG 115 40 52)											
NOV . 1977 03...	1125	26	60	1.0	.0						
13310480 - S FK SALMON R AT S FK PLUNGE NR WARM LAKE ID (LAT 44 37 58 LONG 115 41 40)											
NOV . 1977 03...	1215	32	56	5.0	.5						
13310500 - S FK SALMON RIVER NR KNOX ID (LAT 44 39 15 LONG 115 42 05)											
NOV . 1977 03...	1315	46	64	7.0	1.5						
13313500 - SECESH RIVER NEAR BURGDORF, IDAHO (LAT 45 13 59 LONG 115 48 36)											
SEP . 1978 25...	1550	77	24	27.5	11.5						
13315500 - MUD CREEK NR TAMARACK IDAHO (LAT 44 59 48 LONG 116 20 54)											
SEP . 1978 29...	1715	1.8	124	23.0	17.0						
13316000 - BOULDER CREEK NEAR TAMARACK, IDAHO (LAT 45 05 04 LONG 116 26 54)											
OCT . 1977 05...	1415	1.1	62	7.5	5.0	SEP . 1978 29...	1600	2.1	63	14.5	7.0
13316300 - INDIAN CREEK NEAR POLLOCK IDAHO (LAT 45 16 50 LONG 116 21 12.01)											
OCT . 1977 06...	1640	.50	269	20.0	10.5	SEP . 1978 27...	0945	.66	207	17.5	9.0
13316390 - RAPID RIVER AB HATCHERY, NR RIGGINS, IDAHO (LAT 45 21 05 LONG 116 23 52)											
OCT . 1977 06...	1605	67	165	15.5	9.0	SEP . 1978 27...	1030	101	146	19.5	9.5
13316600 - SLATE CREEK AT MOUTH AT SLATE CREEK, IDAHO (LAT 45 38 25 LONG 116 16 56)											
OCT . 1977 06...	1140	57	74	11.0	7.5	SEP . 1978 28...	1535	68	84	20.5	13.5

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
SALMON RIVER BASIN--Continued											
13317045 - WHITEBIRD CREEK, NEAR WHITEBIRD, IDAHO (LAT 45 47 23 LONG 116 15 17)											
OCT , 1977						SEP , 1978					
06...	1325	22	66	16.5	9.0	28...	0825	21	76	12.5	11.0
13317200 - JOHNS CREEK NEAR GRANGEVILLE, IDAHO (LAT 45 56 16 LONG 116 12 03)											
SEP , 1978											
16...	1155	.81	90	16.5	9.5						
13317500 - DEER CK NR WINCHESTER ID (LAT 46 07 00 LONG 116 45 00)											
SEP , 1978											
16...	0755	2.0	82	5.5	7.0						
CLEARWATER RIVER BASIN											
13336000 - SELWAY RIVER AB MEADOW CREEK NR LOWELL IDAHO (LAT 46 02 46 LONG 115 17 27.01)											
SEP , 1978											
09...	1900	883	30	19.0	15.5						
13336100 - MEADOW CREEK NEAR LOWELL IDAHO (LAT 46 01 51 LONG 115 17 23)											
SEP , 1978											
10...	0810	137	29	15.0	12.5						
13336450 - HACKCLIFF CR AT O'HARA G.S., IDAHO (LAT 46 05 05 LONG 115 29 38)											
DEC , 1977											
15...	1245	55	36	7.0	4.0						
13336600 - SWIFTWATER CREEK NEAR LOWELL IDAHO (LAT 46 06 55 LONG 115 34 21)											
SEP , 1978											
09...	1615	3.6	62	16.5	12.0						
13336650 - EF PAPOOSE CR NR POWELL RS (LAT 46 32 07 LONG 114 45 52)											
AUG , 1978											
08...	0800	2.5	188	7.0	7.0						
13336800 - WARM SPR CR NR POWELL RS (LAT 46 28 20 LONG 114 53 10)											
AUG , 1978											
09...	0945	44	22	6.5	10.5						
13336850 - WEIR CR NR POWELL RS (LAT 46 27 31 LONG 115 02 01)											
AUG , 1978											
09...	1120	7.2	34	16.5	11.0						
13337100 - CLEAR CREEK NEAR KOOSKIA IDAHO (LAT 46 07 56 LONG 115 57 55)											
SEP , 1978											
17...	0830	39	47	8.0	8.5						
13337200 - RED HORSE CREEK NEAR ELK CITY, IDAHO (LAT 45 47 39 LONG 115 23 59)											
SEP , 1978											
10...	1200	3.1	42	11.0	11.5						
13337700 - PEASLEY CREEK NEAR GOLDEN, IDAHO (LAT 45 49 05 LONG 115 49 01)											
SEP , 1978											
10...	1410	10	50	18.0	11.5						

CLEARWATER RIVER BASIN--Continued

13338000 - SF CLEARWATER R NR GRANGEVILLE ID (LAT 45 54 49 LONG 116 00 17)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
SEP , 1978					
16...	1520	434	42	15.0	11.5

13338200 - SALLEY ANN CR NR STITES ID (LAT 46 00 40 LONG 115 57 40)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
SEP , 1978					
16...	1655	2.0	73	16.0	17.5

13339500 - LOLO CR NR GREER ID (LAT 46 22 30 LONG 116 08 30)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
SEP , 1978					
17...	1120	77	42	11.5	9.5

13339700 - CANAL GULCH CREEK AT PIERCE RANGER STATION, I (LAT 46 29 50 LONG 115 47 30)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
SEP , 1978					
17...	1330	2.7	72	11.5	8.5

13339900 - DEER CREEK NEAR OROFINO, IDAHO (LAT 46 29 30 LONG 116 10 30)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
SEP , 1978					
17...	1450	.14	133	21.0	11.5

13340000 - CLEARWATER RIVER AT OROFINO, IDAHO (LAT 46 28 43 LONG 116 15 23)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
OCT , 1977						JUN , 1978					
31...	1335	3870	56	14.5	8.5	12...	1545	31500	208	25.0	13.5
DEC						AUG					
12...	1350	10000	71	6.0	4.0	01...	1500	4050	57	33.0	24.5
JAN , 1978						SEP					
30...	1440	--	71	6.5	3.5	27...	1340	2100	100	15.0	14.0
MAR											
15...	1240	8870	65	8.5	7.0						

13341000 - N FK CLEARWATER RIVER AT AHSAHKA ID (LAT 46 03 16 LONG 116 19 10)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
NOV , 1977						MAR , 1978					
01...	0815	1030	36	7.0	11.0	15...	0830	10900	39	6.0	4.5

13341100 - COLD SPRINGS CREEK NEAR CRAIGMONT IDAHO (LAT 46 14 10 LONG 116 31 06)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
SEP , 1978					
16...	1005	.22	293	9.0	8.0

13341400 - EF POTLATCH R NR BOVILL ID (LAT 46 50 08 LONG 116 27 26)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
SEP , 1978					
20...	1630	--	52	11.5	11.5

13341500 - POTLATCH RIVER NR KENDRICK, IDAHO (LAT 46 36 50 LONG 116 39 40)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
SEP , 1978					
19...	1430	32	80	19.0	15.5

13342000 - MISSION CREEK NEAR WINCHESTER IDAHO (LAT 46 11 20 LONG 116 38 49)

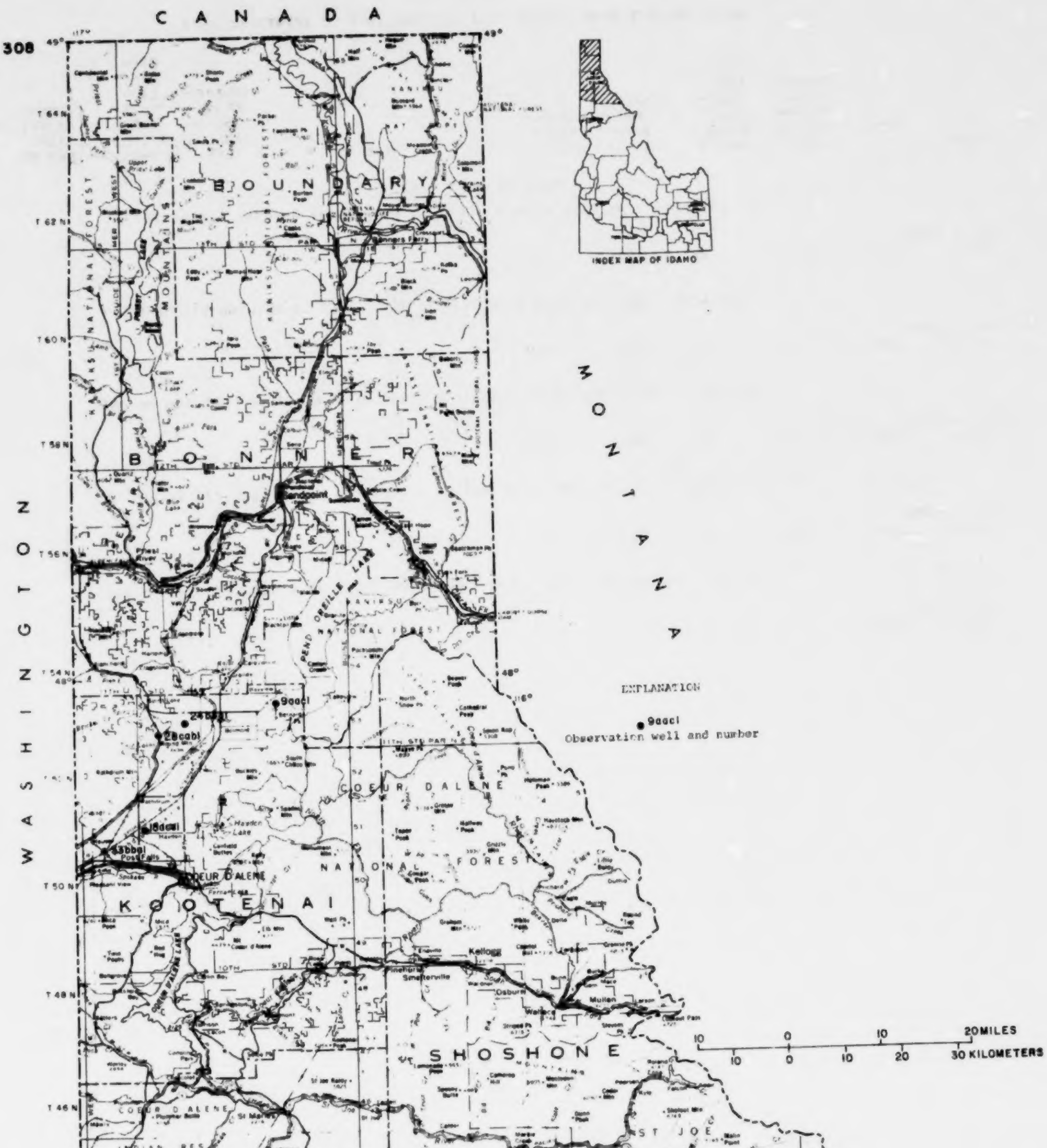
DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
SEP , 1978					
15...	1845	.57	86	14.0	13.5

13342150 - LAPWAI CR AB SWEETWATER CR NR SWEETWATER IDAHO (LAT 46 21 28 LONG 116 46 01)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)
SEP , 1978					
15...	1730	8.1	24	16.5	16.0

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
PALOUSE RIVER BASIN											
13344620 - PALOUSE R NR HARVARD ID (LAT 46 57 00 LONG 116 40 20)											
SEP , 1978											
21...	1410	11	52	12.5	9.5						
13344700 - DEEP CR TRIB NR POTLATCH ID (LAT 47 01 28 LONG 116 52 57)											
SEP , 1978											
14...	1605	.06	98	15.0	14.5						
13344800 - DEEP CREEK NEAR POTLATCH, IDAHO (LAT 46 57 38 LONG 116 56 04)											
SEP , 1978											
14...	1505	.08	84	26.0	15.5						
13346450 - SF PALOUSE R NR MOSCOW ID (LAT 46 42 41 LONG 116 58 45)											
SEP , 1978											
18...	1530	.32	99	10.0	11.0						
13346750 - PARADISE CREEK AT MOSCOW, IDAHO (LAT 46 43 26 LONG 116 58 46)											
SEP , 1978											
12...	1510	--	91	16.0	14.5						


CANADA
MONTANA
WASHINGTON
BOUNDARY
BONNER
KOOTENAI
SHOSHONE
BENEWAH
COEUR D'ALENE
NATIONAL FOREST
ST JOE
NATIONAL FOREST
KANIKSU NATIONAL FOREST
PEND OREILLE LAKE
COEUR D'ALENE INDIAN RES
Sandpoint
Bonners Ferry
Coeur d'Alene
Post Falls
Kellogg
Smelterville
Wallace
Mullan
St Maries
Hayden Lake
9aac1
24bbd1
28cab1
18dad1
5bbb1
T 64 N
T 62 N
T 60 N
T 58 N
T 56 N
T 54 N
T 52 N
T 50 N
T 48 N
T 46 N
T 44 N
T 42 N
R 5 W
R 3 W
R 1 W
R 1 E
R 3 E
R 5 E
R 7 E
R 9 E
R 11 E
49°
117°
116°
115°
48°
47°
LATAH COUNTY
CLEARWATER COUNTY
Base from U.S. Geological Survey 1:500,000 Idaho 1964
INDEX MAP OF IDAHO
EXPLANATION
9aac1
Observation well and number
10 0 10 20 MILES
10 0 10 20 30 KILOMETERS

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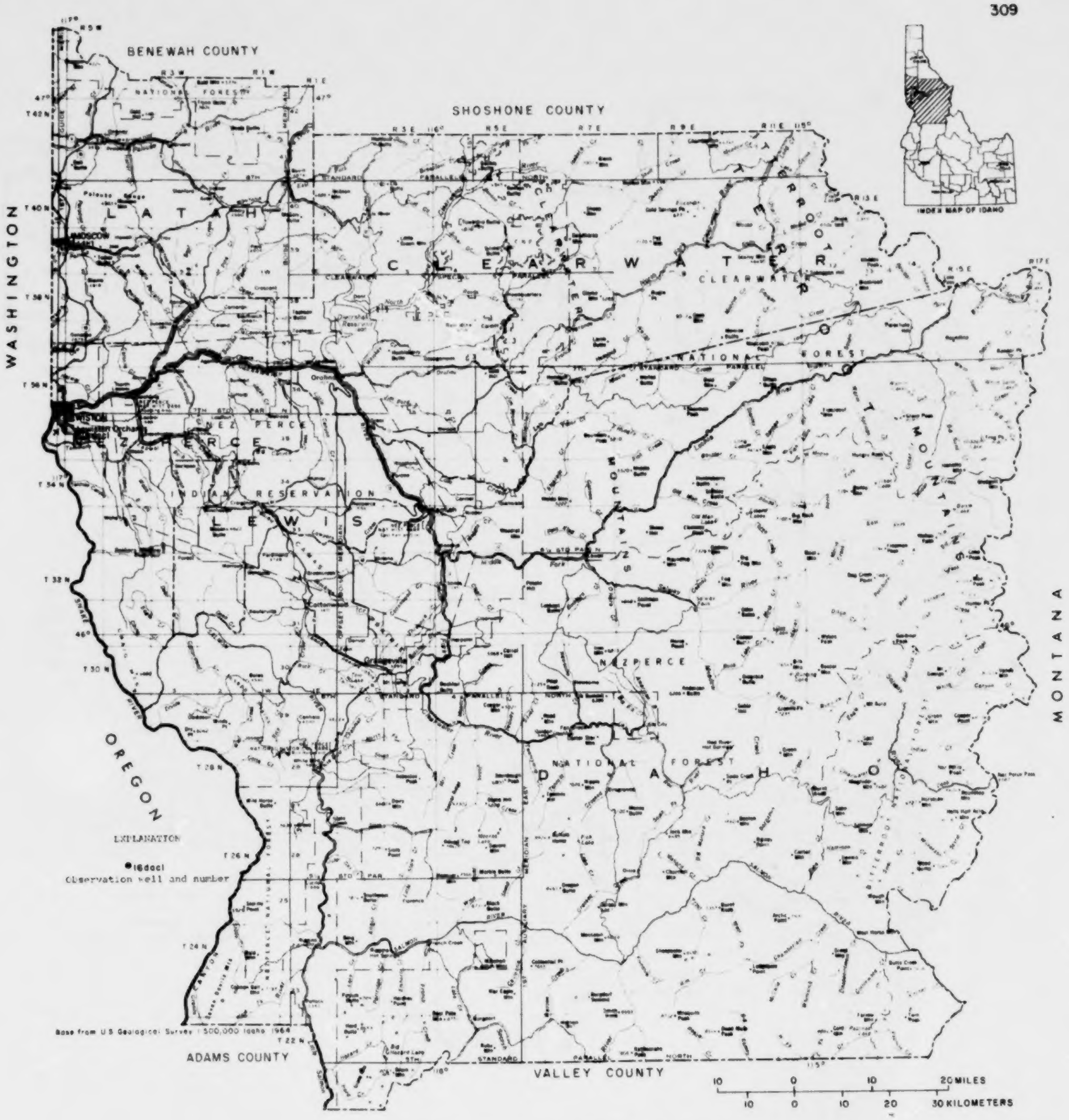
best available copy.

FIGURE 18.--Observation-well locations in north Idaho.


BENEWAH COUNTY
SHOSHONE COUNTY
WASHINGTON
LATAH
CLEARWATER
CLEARWATER
BITTERROOT
NATIONAL FOREST
NEZ PERCE
NEZ PERCE
INDIAN RESERVATION
LEWIS
MOUNTAINS
NEZPERCE
NATIONAL FOREST
IDAHO
OREGON
MONTANA
ADAMS COUNTY
VALLEY COUNTY
INDEX MAP OF IDAHO
T 42 N
T 40 N
T 38 N
T 36 N
T 34 N
T 32 N
T 30 N
T 28 N
T 26 N
T 24 N
T 22 N
R 5 W
R 3 W
R 1 W
R 1 E
R 3 E
R 5 E
R 7 E
R 9 E
R 11 E
R 13 E
R 15 E
117°
116°
115°
47°
46°
EXPLANATION
●16dac1
Observation well and number
10 0 10 20 MILES
10 0 10 20 30 KILOMETERS

Base from U S Geological Survey 1:500,000 Idaho 1964

FIGURE 19.--Observation-well locations in north-central Idaho.

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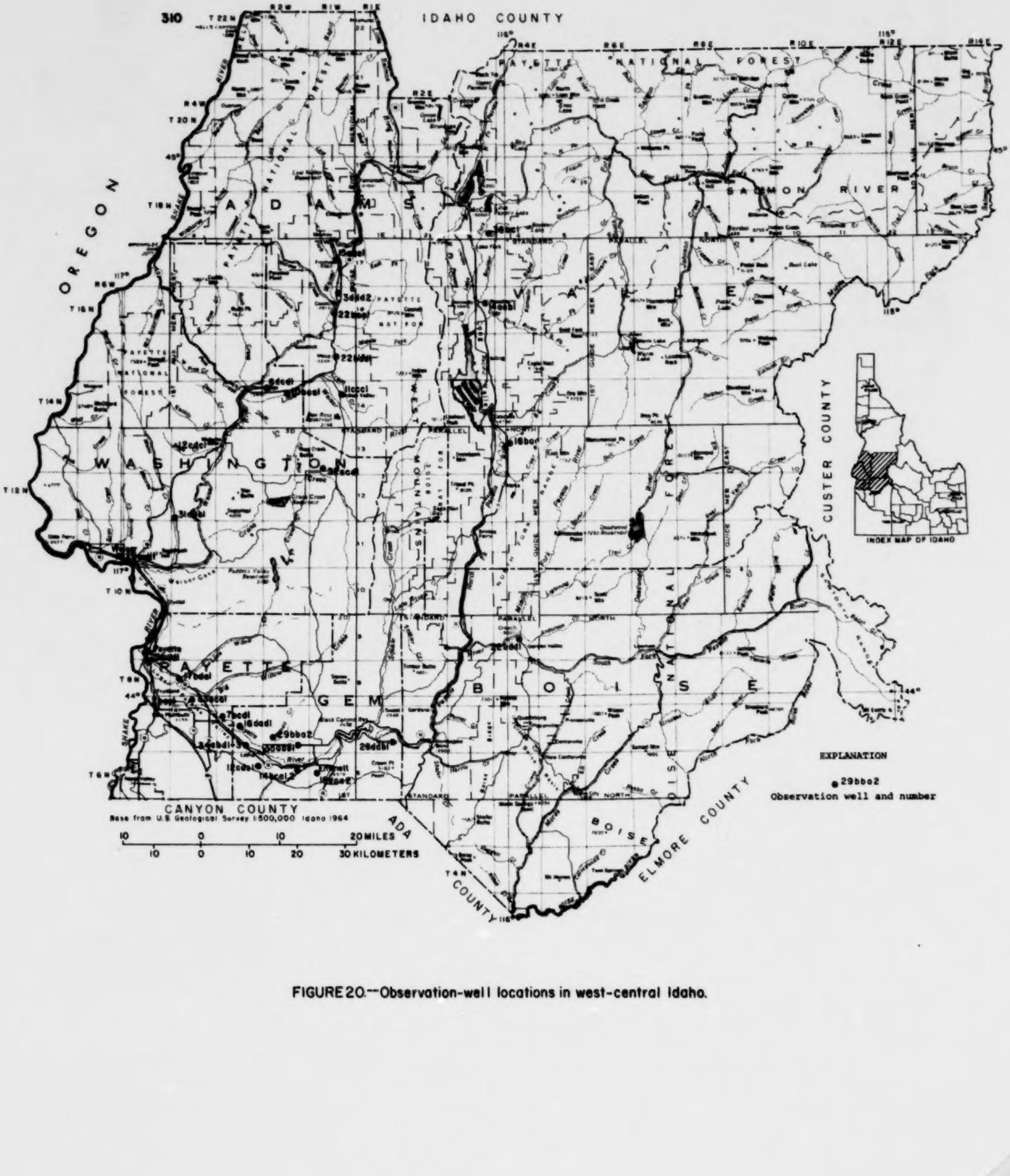
IDAHO COUNTY
PAYETTE NATIONAL FOREST
SALMON RIVER
OREGON
ADAMS
VALLEY
WASHINGTON
PAYETTE
GEM
BOISE
CUSTER COUNTY
CANYON COUNTY
ADA COUNTY
ELMORE COUNTY
BOISE NATIONAL FOREST
SNAKE RIVER
INDEX MAP OF IDAHO
Base from U.S. Geological Survey 1:500,000 Idaho 1964
10 0 10 20 MILES
10 0 10 20 30 KILOMETERS
EXPLANATION
29bba2
Observation well and number

FIGURE 20.--Observation-well locations in west-central Idaho.

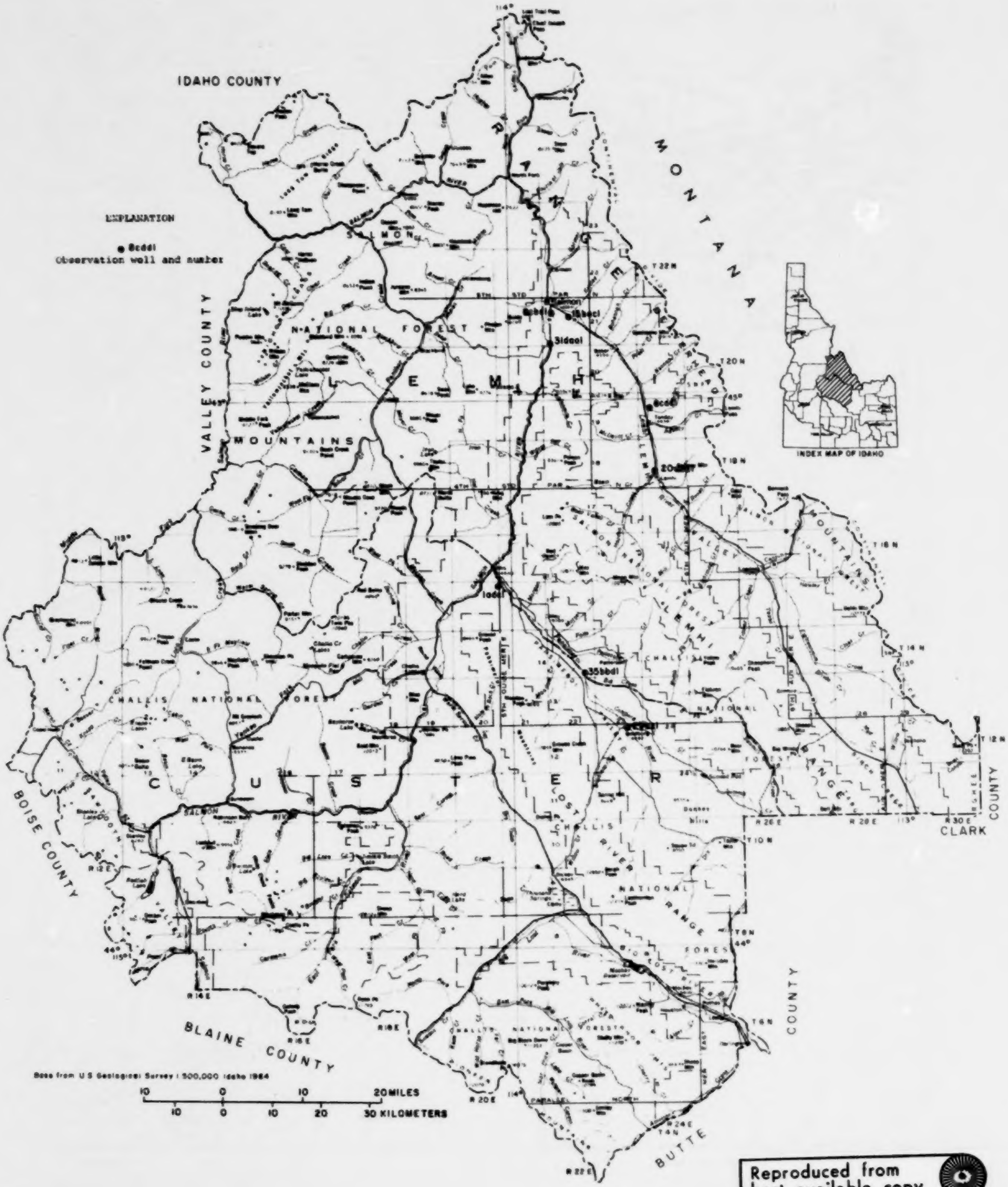
IDAHO COUNTY
MONTANA
EXPLANATION
● 8cdd1
Observation well and number
VALLEY COUNTY
LEMHI
SALMON
NATIONAL FOREST
MOUNTAINS
RANGE
31daa1
8cdd1
35bbd1
CHALLIS NATIONAL FOREST
CUSTER
BOISE COUNTY
BLAINE COUNTY
BUTTE COUNTY
CLARK COUNTY
LOST RIVER RANGE
INDEX MAP OF IDAHO
T 22 N
T 20 N
T 18 N
T 16 N
T 14 N
T 12 N
T 10 N
T 8 N
T 6 N
T 4 N
R 16 E
R 20 E
R 22 E
R 24 E
R 26 E
R 28 E
R 30 E
114°
115°
113°
45°
44°
Base from U S Geological Survey 1:500,000 Idaho 1964
10 0 10 20 MILES
10 0 10 20 30 KILOMETERS

FIGURE 21.--Observation-well locations in east-central Idaho.

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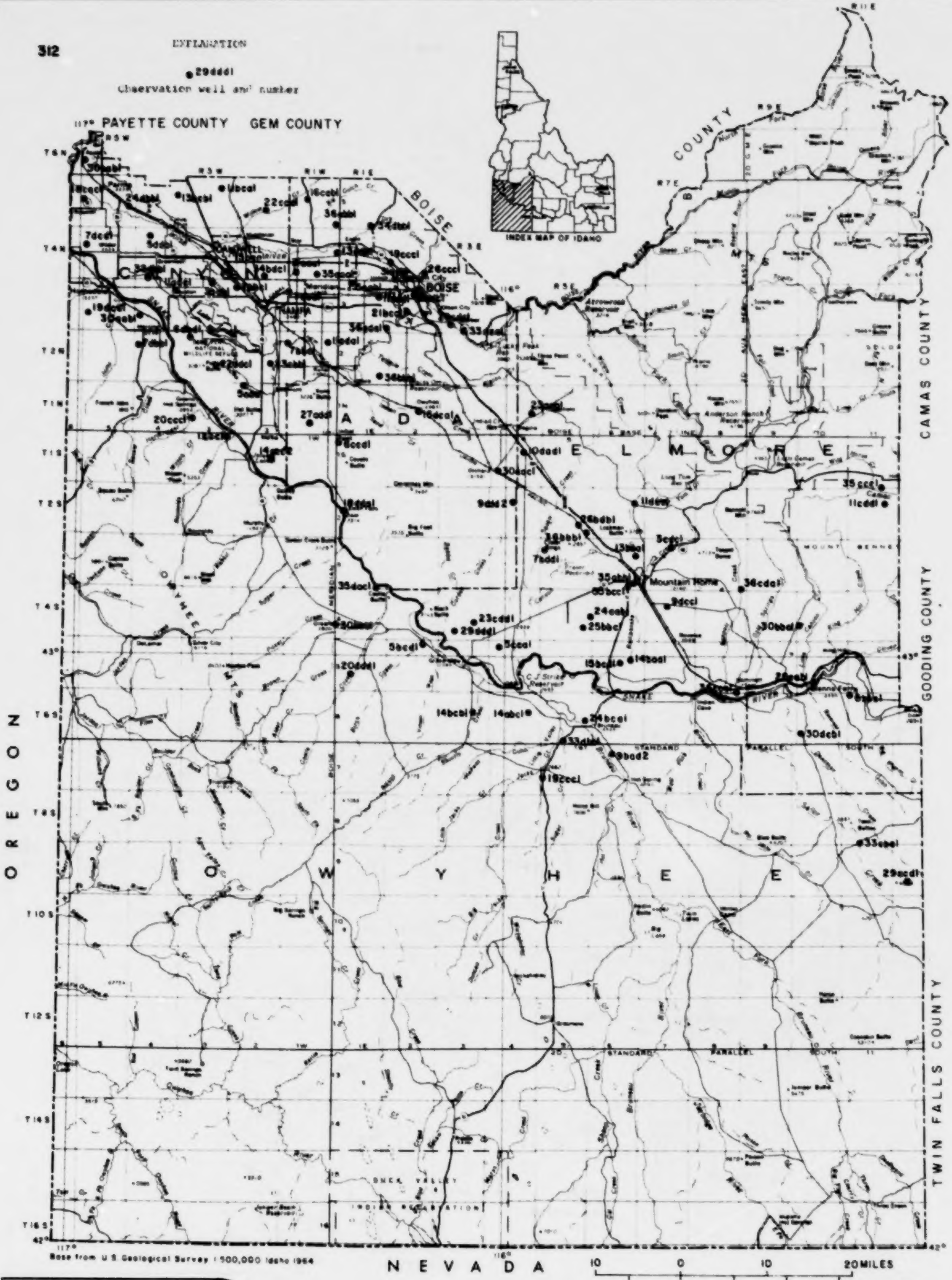
EXPLANATION
29dddl
Observation well and number
117° PAYETTE COUNTY
GEM COUNTY
INDEX MAP OF IDAHO
BOISE
BOISE COUNTY
CANYON
ADA
ELMORE
CAMAS COUNTY
GOODING COUNTY
TWIN FALLS COUNTY
OWYHEE
OREGON
NEVADA
Mountain Home
C.J. Strike Reservoir
SNAKE RIVER
DUCK VALLEY INDIAN RESERVATION
STANDARD PARALLEL SOUTH
T6N
T4N
T2N
T1N
T1S
T2S
T4S
T6S
T8S
T10S
T12S
T14S
T16S
R5W
R3W
R1W
R1E
R3E
R5E
R7E
R9E
R11E
43°
42°
116°
117°
30cbbl
13cbbl
11bcal
16ccbl
22ccal
24cbbl
36ddl
34cdal
7dcdl
19ccal
26ccdl
35cdal
21bccl
33ddal
19dcdl
30dcbl
22dddl
36dcal
27ddl
16dcal
20ccal
14cdd2
6ccal
10cdal
30abcl
9dd2
18ddal
11ddcl
36bdbl
3cdcl
13bbl
7bddl
35cbbl
36bccl
36cdal
9dccl
35dcdl
23cddl
29ddl
24cabl
25bbcl
30bbdl
5bcdl
5ccal
15bcb
14bcal
20ddl
14bcbl
14abcl
24bcal
33cdd
9bad2
19cccl
29abl
30dcbl
33cbal
29acdl
35cccl
11cddl
Base from U.S. Geological Survey 1:500,000 Idaho 1964
10 0 10 20 MILES
10 0 10 20 30 KILOMETERS

FIGURE 22.--Observation-well locations in southwest Idaho.

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ADA COUNTY

WELL 05N 01W 16CAB1 SITE NUMBER 434615116275801

DRILLED DOMESTIC WATER-TABLE WELL IN IDAHO GROUP, DIAM 8 IN (20 CM), REPORTED DEPTH 628 FT (191 M), CASED TO 492 FT (150 M), LSD ABOUT 2,715 FT (828 M) NGVD OF 1929, MP NO. 1 TOP OF 8-IN (20-CM) CASING SOUTHWEST SIDE, 1.50 FT (0.457 M) ABOVE LSD (SINCE MAR. 10, 1967).

RECORDS AVAILABLE 1967 - 1973.

HIGHEST WATER LEVEL 187.07 FEET BELOW LAND SURFACE DATUM MAR 10, 1967.

LOWEST WATER LEVEL 191.90 FEET BELOW LAND SURFACE DATUM SEP 07, 1973.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 16, 1976	189.60 R S	MAR 14, 1977	189.38 S	MAR 31, 1978	190.78 R S		
SEP 11	190.28 R S	SEP 14	193.13 R S	MAY 15	N		

WELL 05N 01W 36ABB1 SITE NUMBER 434406116240801

DRILLED DOMESTIC WATER-TABLE WELL IN IDAHO GROUP, DIAM 6 IN (15 CM), REPORTED DEPTH 105 FT (32 M), CASED TO 105 FT (32 M), OPEN BOTTOM, LSD ABOUT 2,618 FT (798 M) NGVD OF 1929, MP NO. 1 TOP OF PIPE IN WELL SEAL, 0.70 FT (0.213 M) BELOW LSD (SINCE AUG. 27, 1969).

RECORDS AVAILABLE 1969 - 1977, 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 70.57 FEET BELOW LAND SURFACE DATUM SEP 11, 1974.

LOWEST WATER LEVEL 76.65 FEET BELOW LAND SURFACE DATUM MAR 10, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 16, 1976	75.78 S	JUN 16, 1977	75.17 S	SEP 06, 1977	72.91 S	MAR 31, 1978	76.90 R S
SEP 11	73.65 S	JUL 01	76.29 S	14	73.95 P S	SEP 15	73.05 S
MAR 10, 1977	76.65 S	AUG 01	74.04 S	DEC 09	74.31 S		

WELL 05N 01E 34DBB1 SITE NUMBER 434341116192001

DRILLED IRRIGATION WATER-TABLE WELL IN IDAHO GROUP, DIAM 14 IN (36 CM), REPORTED DEPTH 175 FT (53 M), CASED 0-175 FT (0-53 M), PERFORATED 0-175 FT (0-53 M), LSD ABOUT 2,680 FT (817 M) NGVD OF 1929, MP NO. 1 DRILLED HOLE IN SOUTH SIDE OF CASING, 0.50 FT (0.152 M) ABOVE LSD (SINCE DEC. 16, 1966).

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 25.09 FEET BELOW LAND SURFACE DATUM SEP 22, 1972.

LOWEST WATER LEVEL 30.90 FEET BELOW LAND SURFACE DATUM MAR 09, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 16, 1976	30.51 S	MAY 18, 1977	29.98 S	NOV 22, 1977	28.09 S	MAY 19, 1978	30.47 S
SEP 11	26.40 S	JUL 20	25.72 S	JAN 16, 1978	29.52 S	JUL 25	26.73 S
MAR 09, 1977	30.90 S	SEP 14	26.19 S	MAR 17	29.83 S	SEP 15	25.97 S

See footnotes on p. 366.

WELL 04N 01W 13DDB1 SITE NUMBER 434048116235101

DRILLED IRRIGATION ARTESIAN WELL IN GLENNS FERRY FORMATION, DIAM 3 IN (8 CM), DEPTH 130 FT (40 M), CASING DEPTH NOT AVAILABLE. LSD 2,524.96 FT (769.608 M) NGVD OF 1929. MP NO. 1 TOP OF 3-IN (8-CM) CASING, 1.30 FT (0.396 M) ABOVE LSD (SINCE MAR. 2, 1950).

RECORDS AVAILABLE 1950 - 1956, 1957 - 1966, 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 10.72 FEET ABOVE LAND SURFACE DATUM OCT 22, 1952.

LOWEST WATER LEVEL 5.10 FEET ABOVE LAND SURFACE DATUM SEP 28, 1951.

WATER LEVELS IN FEET ABOVE LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 10, 1976	5.99 E M	JUN 09, 1976	7.49 E M	JUL 20, 1977	7.74 E M	MAR 31, 1978	7.18 E M
FEB 14	6.33 E M	SEP 11	9.26 E M	SEP 14	8.34 E M	MAY 19	6.89 E M
MAR 16	5.37 E M	MAR 09, 1977	6.77 E M	NOV 30	8.29 E M	JUL 25	7.32 E M
MAY 01	7.85 E M	MAY 18	6.80 E M	JAN 23, 1978	9.93 E M	SEP 18	8.37 E M

WELL 04N 01W 31AAA1 SITE NUMBER 433852116293401

DRILLED IRRIGATION ARTESIAN WELL IN IDAHO GROUP, DIAM 6 IN (15 CM), REPORTED DEPTH 462 FT (141 M), CASED 0-455 FT (0-139 M). LSD ABOUT 2,508 FT (764 M) NGVD OF 1929. MP NO. 1 TOP OF 6-IN (15-CM) CASING PLUG, 3.50 FT (1.067 M) ABOVE LSD (SINCE APR. 28, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 30.62 FEET ABOVE LAND SURFACE DATUM DEC 04, 1968.

LOWEST WATER LEVEL 19.87 FEET ABOVE LAND SURFACE DATUM JUL 09, 1973.

WATER LEVELS IN FEET ABOVE LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 16, 1976	22.44 E M	MAR 09, 1977	26.72 E M	MAR 31, 1978	21.88 E M		
SEP 25	21.76 E M	SEP 26	21.64 E M	SEP 18	21.31 E M		

WELL 04N 01W 35AAA1 SITE NUMBER 433852116244801

DUG UNUSED WATER-TABLE WELL IN YOUNGER TERRACE GRAVEL. DIAM 24 IN (61 CM). DEPTH 44 FT (13 M). CASING DEPTH NOT AVAILABLE. LSD 2.570.60 FT (783.519 M) NGVD OF 1929. SUPPLEMENTARY ADJUSTMENT OF 1961. WATER LEVEL INFLUENCED BYLOCAL IRRIGATION. JULY 24. 1973. WELL HAD FILLED IN TO A DEPTH OF 32.2 FT (9.8 M). MEASUREMENTS MADEOCT. 13. 1933. THROUGH MAR. 1. 1947. AND NOV. 4. 1947. THROUGH MAR. 11. 1951. MADE BY NAMPA-MERIDIANIRRIGATION DISTRICT. RECORDER INSTALLED MAY 15. 1953. RECORDER CHANGED TO DIGITAL SEPT. 16. 1975. MP NO. 1 TOP OF CASING NORTH SIDE. 1.30 FT (0.396 M) ABOVE LSD (SINCE MAY 22. 1953).

RECORDS AVAILABLE 1933 - 1951. 1952. 1953 TO CURRENT YEAR.

HIGHEST WATER LEVEL 1.73 FEET BELOW LAND SURFACE DATUM JUL 10. 1974.

LOWEST WATER LEVEL 12.20 FEET BELOW LAND SURFACE DATUM MAR 15. 1935.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 05. 1976	8.82	SEP 20. 1976	4.26	JUN 10. 1977	4.73	FEB 10. 1978	8.63
10	8.68	25	4.64	15	4.49	15	8.68
12	8.61	30	3.73	20	3.99	20	8.79
15	8.70	OCT 05	3.87	25	4.22	23	8.83
20	8.78	10	4.79	30	4.21	25	8.88
25	8.88	15	5.57	JUL 05	3.79	MAR 05	9.09
31	9.10	20	6.17	10	4.29	10	9.07
FEB 05	9.24	25	6.58	15	3.59	15	9.21
10	9.35	31	6.95	20	3.62	20	9.31
15	9.35	NOV 05	7.19	24	2.66	25	9.37
20	9.48	10	7.44	31	3.60	31	9.43
25	9.47	15	7.73	AUG 04	3.03	APR 05	9.62
29	9.45	20	7.92	05	3.43	10	9.74
MAR 05	9.70	25	8.09	10	10.00 P	15	9.87
10	9.63	30	8.33	15	4.19	20	9.97
15	9.86	DEC 05	8.47	16	4.22	25	10.05
20	9.96	10	8.65	20	11.61 P	30	10.14
25	10.05	15	8.79	25	3.57	MAY 05	10.28
31	9.92	20	8.93	29	17.77 P	10	10.38
APR 05	10.14	25	9.03	31	10.62 P	12	10.51
10	10.30	31	9.19	SEP 01	2.34	15	9.86
15	10.28	JAN 05. 1977	9.33	05	3.33	20	8.80
20	10.44	10	9.38	10	2.71	25	8.52
23	10.58	15	9.44	15	3.45	31	8.08
25	10.53	20	9.52	20	4.63	JUN 05	6.30
30	10.04	25	9.66	25	5.02	10	5.79
MAY 05	9.55	31	9.78	30	5.66	15	5.78
10	9.26	FEB 05	9.91	OCT 01	5.72	20	5.08
15	7.72	10	10.06	05	6.06	25	4.83
25	6.03	15	10.11	10	6.51	30	3.64
31	5.42	20	10.15	15	6.82	JUL 05	4.45
JUN 05	4.69	25	10.61	20	7.10	08	20.39 P
10	4.25	28	10.57	25	7.4	10	5.34
15	4.91	MAR 05	10.74	31	7.73	15	5.68
20	4.92	10	10.86	NOV 05	7.94	20	4.85
25	4.13	15	10.87	10	8.20	25	4.62
30	3.95	20	10.98	15	8.36	31	4.41
JUL 05	3.72	25	11.05	20	8.56	AUG 05	3.82
10	3.87	31	11.14	25	8.63	10	11.44 P
15	3.23	APR 05	11.26	30	8.63	15	3.89
20	3.20	10	11.36	DEC 05	8.75	20	3.82
25	2.78	15	11.36	10	8.85	25	20.91 P
31	3.70	20	10.89	13	8.92	31	3.11
AUG 05	3.15	25	10.09	15	8.87	SEP 01	2.74
10	3.55	30	9.05	20	8.87	05	3.85
15	10.12 P	MAY 05	9.05	25	8.95	10	4.42
20	10.33 P	10	8.32	31	9.11	15	4.70
25	4.14	15	7.62	JAN 05. 1978	9.16	20	4.75
31	23.31 P	20	7.38	07	9.23	25	4.28
SEP 05	8.21 P	25	5.10	11	7.97	30	4.96
10	3.27	28	5.94	25	8.07		
11	2.24	31	5.52	31	8.35		
15	9.62 P	JUN 05	5.71	FEB 05	8.53		

WELL 04N 02E 14CCC1 SITE NUMBER 433946116161401

DRILLED DOMESTIC WATER-TABLE WELL IN SAND OF QUATERNARY AGE. DIAM 6 IN (15 CM). REPORTED DEPTH 104 FT (32 M). CASED TO 97 FT (30 M). LSD ABOUT 2,621 FT (799 M) NGVD OF 1929. MP NO. 1 TOP OF 6-IN (15-CM) CASING. 0.90 FT (0.274 M) ABOVE LSD (SINCE JULY 28, 1970).

RECORDS AVAILABLE 1970 TO CURRENT YEAR.

HIGHEST WATER LEVEL 5.59 FEET BELOW LAND SURFACE DATUM SEP 11, 1976.

LOWEST WATER LEVEL 8.95 FEET BELOW LAND SURFACE DATUM JUL 28, 1970.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
MAR 16, 1976	7.39	S	MAR 10, 1977	8.50	S	MAR 17, 1978	7.09 P	S			
SEP 11	5.59	S	SEP 14	6.18	S	SEP 15	6.10	S			

WELL 04N 02E 26CCC1 SITE NUMBER 433856116113001

DRILLED IRRIGATION WATER-TABLE WELL IN IDAHO GROUP. DIAM 12 IN (30 CM). REPORTED DEPTH 741 FT (226 M). CASED TO 741 FT (226 M). PERFORATED 210-741 FT (64-226 M). LSD 2,877.30 FT (877.001 M) NGVD OF 1929. SUPPLEMENTARY ADJUSTMENT OF 1961. FEB. 13, 1975, WELL HAD FILLED IN TO A DEPTH OF 730.19 FT (222.56 M). MP NO. 1 BOTTOM EDGE OF 6 3/8-IN (16-CM) PIPE. 1.50 FT (0.457 M) ABOVE LSD (SINCE MAY 2, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 81.13 FEET BELOW LAND SURFACE DATUM MAY 02, 1967.

LOWEST WATER LEVEL 163.78 FEET BELOW LAND SURFACE DATUM MAY 19, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
JAN 10, 1976	97.10	S	JUN 09, 1976	149.88	S	JUL 20, 1977	183.34 P	T	MAR 17, 1978	102.24	S
FEB 14	92.76	S	SEP 10	159.35	S	SEP 14	181.83 P	T	MAY 19	163.78	S
MAR 16	91.05	S	MAR 10, 1977	99.37	S	NOV 22	128.60	T	JUN 19	160.05	S
MAY 01	107.97	S	MAY 18	118.64	S	JAN 16, 1978	110.80	T	JUL 25	187.11 P	T

WELL 04N 02E 31DCB1 SITE NUMBER 433809116154401

DRILLED UNUSED WATER-TABLE WELL IN IDAHO GROUP. DIAM 8 IN (20 CM). DEPTH 133.4 FT (40.7 M). CASED TO 128 FT (39 M). LSD ABOUT 2,690 FT (820 M) NGVD OF 1929. ORIGINAL REPORTED DEPTH 738 FT (225 M). DIAM 8 TO 4 IN (20 TO 10 CM). 8-IN (20-CM) CASING 0-150 FT (0-46 M). 4-IN (10-CM) CASING 150-738 FT (46-225 M). GRAVEL PACKED BELOW 150 FT (46 M). MP NO. 1 TOP OF HOLE IN 1/4-IN (0.64-CM) STEEL COVER SOUTH SIDE. 0.75 FT (0.229 M) ABOVE LSD(SINCE MAR. 11, 1971).

RECORDS AVAILABLE 1971 TO CURRENT YEAR.

HIGHEST WATER LEVEL 43.93 FEET BELOW LAND SURFACE DATUM SEP 25, 1972.

LOWEST WATER LEVEL 53.74 FEET BELOW LAND SURFACE DATUM JUN 09, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
JAN 10, 1976	50.12	S	JUN 09, 1976	53.74	S	JUL 21, 1977	50.94	S	MAR 13, 1978	52.26	S
FEB 14	50.77	S	SEP 11	48.82	S	SEP 14	46.89	S	MAY 22	52.14	S
MAR 15	51.43	S	MAR 10, 1977	45.21	S	NOV 22	45.64	S	JUL 25	49.24 N	S
MAY 01	49.74	S	MAY 18	45.47	S	JAN 24, 1978	49.95	S			

WELL 03N 01E 05AAB2 SITE NUMBER 433802116213101

DRILLED OBSERVATION WATER-TABLE WELL IN YOUNGER TERRACE GRAVEL, DIAM 6 IN (15 CM), DEPTH 82.4 FT (25.1 M), PERFORATED, INTERVAL NOT AVAILABLE.LSD 2,616.02 FT (797.363 M) NGVD OF 1929. RECORDER INSTALLED SEPT. 24, 1953. RECORDER REMOVED NOV. 16, 1954. MP NO. 1 TOP OF 6-IN (15-CM) CASING SOUTH SIDE, 0.50 FT (0.152 M) ABOVE LSD (SINCE SEPT. 24, 1953).

RECORDS AVAILABLE 1953 - 1954, 1955 - 1970, 1971 TO CURRENT YEAR.

HIGHEST WATER LEVEL 3.24 FEET BELOW LAND SURFACE DATUM SEP 11, 1974.

LOWEST WATER LEVEL 16.04 FEET BELOW LAND SURFACE DATUM MAY 17, 1955.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
JAN 10, 1976	10.10	S	SEP 25, 1976	4.94	S	AUG 22, 1977	5.82	S	MAR 13, 1978	12.34	S
FEB 14	11.28	S	NOV 13	8.60	S	SEP 09	4.70	S	MAY 23	12.70	S
MAR 15	12.44	S	JAN 26, 1977	11.59	S	14	4.59	S	JUL 25	7.88	S
MAY 01	14.00	S	MAR 07	13.32	S	NOV 22	9.29	S	SEP 14	5.32	S
JUN 09	10.28	S	MAY 18	12.77	S	DEC 09	10.08	S			
JUL 08	6.01	S	JUL 20	7.54	S	JAN 16, 1978	11.28	S			

WELL 03N 01E 11DDD1 SITE NUMBER 433624116173601

DRILLED IRRIGATION WATER-TABLE WELL IN OLDER TERRACE GRAVEL, DIAM 14 IN (36 CM), DEPTH 126.0 FT (38.4 M), CASING DEPTH NOT AVAILABLE. LSD 2,684.00 FT (818.083 M) NGVD OF 1929. MEASUREMENTS FROM 1924 TO MAR. 4, 1947, AND NOV. 6, 1947, TO OCT. 29, 1949, MADE BY NAMPA-MERIDIAN IRRIGATION DISTRICT. MP NO. 5 TOP OF 14-IN (36-CM) CASING EAST SIDE, 0.50 FT (0.152 M) ABOVE LSD (SINCE DEC. 16, 1966).

RECORDS AVAILABLE 1924 - 1949, 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 1.10 FEET BELOW LAND SURFACE DATUM SEP 11, 1974.

LOWEST WATER LEVEL 14.75 FEET BELOW LAND SURFACE DATUM MAR 31, 1924.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
JAN 10, 1976	3.84	S	SEP 25, 1976	2.10	S	AUG 01, 1977	2.96	S	JAN 16, 1978	4.33	S
FEB 14	4.77	S	MAR 07, 1977	5.50	S	SEP 06	2.49	S	MAR 13	5.43	S
MAR 15	5.06	S	MAY 18	4.15	S	13	2.13	S	MAY 31	3.76	S
MAY 01	4.70	S	JUN 16	3.22	S	NOV 22	4.89	S	JUL 25	3.13 N	S
JUN 09	3.02	S	JUL 20	3.05	S	DEC 09	4.94	S			

WELL 03N 01E 36ADA1 SITE NUMBER 433322116162601

DRILLED DOMESTIC WATER-TABLE WELL IN OLDER TERRACE GRAVEL, DIAM 4 IN (10 CM), REPORTED DEPTH 330 FT (101 M), CASED TO 330 FT (101 M), PERFORATED 276-292 FT (84-89 M). LSD 2,820.36 FT (859.646 M) NGVD OF 1929. MP NO. 2 TOP OF 8-IN (20-CM) CONCRETE CASING SOUTHWEST SIDE, 1.00 FT (0.305 M) ABOVE LSD (SINCE APR. 25, 1958).

RECORDS AVAILABLE 1953 TO CURRENT YEAR.

HIGHEST WATER LEVEL 115.86 FEET BELOW LAND SURFACE DATUM NOV 07, 1955.

LOWEST WATER LEVEL 126.11 FEET BELOW LAND SURFACE DATUM APR 26, 1955.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
MAR 16, 1976	119.74	S	JUL 21, 1976	119.84	S	OCT 28, 1976	117.24	S	SEP 13, 1977	119.37	S
APR 20	121.47	S	AUG 27	118.78	S	DEC 01	117.91	S	MAR 13, 1978	121.64	S
MAY 25	120.71	S	SEP 23	119.52 S	S	28	118.69	S	SEP 14	120.96	S
JUN 22	120.31	S	25	117.37	S	MAR 07, 1977	120.11	S			

WELL 03N 02E 08ADC1 SITE NUMBER 433646116141001

DRILLED DOMESTIC WATER-TABLE WELL IN YOUNGER TERRACE GRAVEL, DIAM 4 IN (10-CM), REPORTED DEPTH 90 FT (27 M), CASED TO 50 FT (15 M). LSD 2,726.90 FT (831.159 M) NGVD OF 1929, SUPPLEMENTARY ADJUSTMENT OF 1961. MP NO. 1 TOP OF 4-IN (10-CM) CASING,1.20 FT (0.366 M) ABOVE LSD (SINCE NOV. 20, 1969).

RECORDS AVAILABLE 1969 TO CURRENT YEAR.

HIGHEST WATER LEVEL 18.84 FEET BELOW LAND SURFACE DATUM SEP 22, 1972.

LOWEST WATER LEVEL 33.80 FEET BELOW LAND SURFACE DATUM MAR 07, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL
MAR 16, 1976	30.76	S	MAR 07, 1977	33.80	S	MAR 13, 1978	30.74	N S		
SEP 25	20.45	S	SEP 15	21.52	S					

WELL 03N 02E 21BCC1 SITE NUMBER 433502116135201

DRILLED UNUSED WATER-TABLE WELL IN SAND AND GRAVEL OF TERTIARY AGE, DIAM 14 IN (36 CM), DEPTH 58 FT (18 M), PERFORATED, INTERVAL NOT AVAILABLE. LSD 2,751.09 FT (838.532 M) NGVD OF 1929. MP NO. 3 TOP OF 1 1/2-IN (3.8-CM) PIPE EAST SIDE, 2.18 FT (0.664 M) ABOVE LSD (SINCE JAN. 24, 1975).

RECORDS AVAILABLE 1947 - 1950, 1951 - 1970, 1971 TO CURRENT YEAR.

HIGHEST WATER LEVEL 0.34 FEET BELOW LAND SURFACE DATUM AUG 18, 1955.

LOWEST WATER LEVEL 16.28 FEET BELOW LAND SURFACE DATUM MAY 19, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
JAN 10, 1976	12.71	S	SEP 21, 1976	9.63	S	JUL 19, 1977	11.63	S	DEC 09, 1977	12.74	S
FEB 14	13.81	S	25	9.60	S	AUG 01	11.30	S	JAN 16, 1978	13.87	S
MAR 16	14.82	S	MAR 07, 1977	15.18	S	SEP 06	9.02	S	MAR 13	14.60	S
MAY 01	16.11	S	MAY 19	16.28	S	13	8.88	S	JUL 25	11.27	S
JUN 09	14.24	S	JUN 16	14.35	S	NOV 22	12.09	S	SEP 14	9.01	S

WELL 03N 03E 29CDC1 SITE NUMBER 433339116074201

DRILLED UNUSED WATER-TABLE WELL IN YOUNGER TERRACE GRAVEL, DIAM 8 IN (20 CM), REPORTED DEPTH 147 FT (45 M), CASING DEPTH NOT AVAILABLE. LSD 2,825.00 FT (861.060 M) NGVD OF 1929, SUPPLEMENTARY ADJUSTMENT OF 1961. MP NO. 1 TOP OF 8-IN (20-CM) CASING EAST SIDE, 1.50 FT (0.457 M) ABOVE LSD (SINCE APR. 17, 1970).

RECORDS AVAILABLE 1969 TO CURRENT YEAR.

HIGHEST WATER LEVEL 58.39 FEET BELOW LAND SURFACE DATUM SEP 20, 1971.

LOWEST WATER LEVEL 71.98 FEET BELOW LAND SURFACE DATUM DEC 29, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
MAR 16, 1976	69.41	S	JUN 22, 1976	69.86	S	SEP 23, 1976	72.32	S S	DEC 01, 1976	70.46	S
APR 21	69.56	S	JUL 23	69.35	S	25	67.81	N S	29	71.98	S
MAY 25	69.40	S	AUG 30	68.30	S	OCT 28	68.42	S			

WELL 03N 03E 33DAA1 SITE NUMBER 433311116054501

DRILLED DOMESTIC WATER-TABLE WELL IN IDAHO GROUP, DIAM 6 IN (15 CM), REPORTED DEPTH 127 FT (39 M), CASED TO 120 FT (37 M), LSD 2,862.30 FT (872.469 M) NGVD OF 1929, SUPPLEMENTARY ADJUSTMENT OF 1961. MP NO. 1 TOP OF ELECTRIC INLET BOX IN CASING CAP, 1.70 FT (0.518 M) ABOVE LSD (SINCE AUG. 25, 1969).

RECORDS AVAILABLE 1969 TO CURRENT YEAR.

HIGHEST WATER LEVEL 52.45 FEET BELOW LAND SURFACE DATUM MAR 16, 1972.

LOWEST WATER LEVEL 62.13 FEET BELOW LAND SURFACE DATUM SEP 22, 1972.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAY 14, 1976	53.59 R S	MAR 10, 1977	53.51 S	MAR 17, 1978	53.61 S		
SEP 25	54.37 S	SEP 14	55.34 P S	SEP 15	54.87 S		

WELL 02N 01W 11ADA1 SITE NUMBER 433143116245101

DRILLED IRRIGATION WATER-TABLE WELL IN OLDER TERRACE GRAVEL, DIAM 16 IN (41 CM), REPORTED DEPTH 130 FT (40 M), CASED TO 120 FT (37 M), PERFORATED60-116 FT (20-35 M), LSD ABOUT 2,685 FT (818 M) NGVD OF 1929. MP NO. 2 BOTTOM EDGE OF HOLE INPUMPBASE SOUTH SIDE, 0.60 FT (0.183 M) ABOVE LSD (SINCE DEC. 4, 1967).

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 63.47 FEET BELOW LAND SURFACE DATUM SEP 27, 1971.

LOWEST WATER LEVEL 98.69 FEET BELOW LAND SURFACE DATUM MAY 19, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 15, 1976	78.60 S	JUL 21, 1976	90.15 P T	DEC 28, 1976	73.76 S	SEP 13, 1977	75.42 S
30	79.62 S	AUG 26	77.25 P T	MAR 07, 1977	79.00 S	DEC 09	78.19 S
APR 20	80.74 S	SEP 19	67.40 S	JUN 16	84.90 S	MAR 23, 1978	84.24 S
MAY 24	93.93 P T	23	65.72 S	JUL 07	92.65 P S	MAY 19	98.69 S
JUN 09	93.09 P S	OCT 28	68.03 S	AUG 01	91.04 P S	SEP 14	80.47 S
22	93.27 P T	DEC 01	71.49 S	SEP 06	76.09 S		

WELL 02N 01E 36BBB1 SITE NUMBER 432825116173501

DRILLED STOCK WATER-TABLE WELL IN IDAHO GROUP, DIAM 6 IN (15 CM), DEPTH 305 FT (93 M), CASED TO 300 FT (91 M). LSD ABOUT 2,867 FT (874 M) NGVD OF1929. MP NO. 1 TOP OF 6-IN (15-CM) THREAD PROTECTOR NORTHEAST SIDE, 1.20 FT (0.366 M) ABOVE LSD (SINCE NOV. 28, 1969).

RECORDS AVAILABLE 1969 TO CURRENT YEAR.

HIGHEST WATER LEVEL 249.83 FEET BELOW LAND SURFACE DATUM JAN 31, 1974.

LOWEST WATER LEVEL 258.70 FEET BELOW LAND SURFACE DATUM SEP 14, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 10, 1976	252.85 S	JUN 22, 1976	254.28 S	DEC 29, 1976	253.52 S	JAN 23, 1978	255.85 S
FEB 14	252.25 S	JUL 21	255.10 S	JAN 26, 1977	253.12 S	MAR 23	255.48 S
MAR 15	252.39 S	AUG 27	256.18 S	MAR 07	252.87 S	MAY 18	256.01 S
30	252.24 S	SEP 19	256.16 S	MAY 19	254.69 S	JUL 24	257.96 S
APR 20	252.19 S	23	256.02 S	JUL 19	256.88 S	SEP 14	258.70 S
MAY 01	252.22 S	OCT 27	255.30 S	SEP 13	257.64 S		
25	253.20 S	DEC 01	254.41 S	NOV 22	256.38 S		

WELL 01N 01W 27ADD1 SITE NUMBER 432344116255901

DRILLED UNUSED WATER-TABLE WELL IN OLDER TERRACE GRAVEL. DIAM 20 TO 16 IN (50 TO 41 CM). REPORTED DEPTH 500 FT (152.4 M). 20-IN (50-CM) CASING 0-21 FT (0-6.4 M). 16-IN (41-CM) CASING 21-498 FT (6.4-151.7 M). LSD ABOUT 2,904 FT (885 M) NGVD OF 1929. MP NO. 1 BOTTOM EDGE OF 1 1/4-IN (3.2-CM) ACCESS PIPE ON SOUTH SIDE OF PUMP. 2.00 FT (0.609 M) ABOVE LSD (SINCE APR. 5. 1976).

RECORDS AVAILABLE 1976. 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 345.50 FEET BELOW LAND SURFACE DATUM APR 05. 1976.

LOWEST WATER LEVEL 351.40 FEET BELOW LAND SURFACE DATUM SEP 14, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
APR 05. 1976	345.50	S	DEC 01. 1976	348.08	S	JUL 19. 1977	349.04	S	MAR 23. 1978	348.32	S
19	345.98	S	28	347.47	S	AUG 25	350.11	S	APR 10	348.38	S
MAY 24	346.44 S	S	JAN 26. 1977	347.10	S	SEP 13	350.42	S	MAY 22	348.25	S
JUN 22	347.54 S	S	FEB 24	346.90	S	OCT 26	349.89	S	JUL 24	350.59	S
JUL 21	348.23 T	S	MAR 11	347.00	S	NOV 22	349.38	S	AUG 23	351.11	S
AUG 26	346.78	S	APR 23	346.82	S	DEC 29	348.94	S	SEP 14	351.40	S
SEP 23	348.70	S	MAY 19	347.45	S	JAN 23. 1978	349.17	S			
OCT 27	348.41	S	JUN 14	348.05	S	FEB 23	348.78	S			

WELL 01N 02E 15DCA1 SITE NUMBER 432504116115901

DRILLED UNUSED WATER-TABLE WELL IN IDAHO GROUP. DIAM 6 IN (15 CM). REPORTED DEPTH 600 FT (183 M). CASING DEPTH NOT AVAILABLE. LSD ABOUT 2,970 FT (905 M) NGVD OF 1929. MP NO. 3 TOP OF WEST 8X16-IN (20X41-CM) TIMBER EAST EDGE. 1.40 FT (0.427 M) ABOVE LSD (SINCE MAY 14. 1970).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 361.43 FEET BELOW LAND SURFACE DATUM NOV 28. 1967.

LOWEST WATER LEVEL 365.65 FEET BELOW LAND SURFACE DATUM SEP 14. 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
JAN 10. 1976	363.70	S	JUL 21. 1976	363.95	S	MAR 07. 1977	363.72	S	DEC 09. 1977	364.90	S
FEB 14	363.19	S	AUG 27	364.29	S	MAY 19	364.29	S	JAN 16. 1978	364.35	S
MAR 15	363.62	S	SEP 19	364.14	S	JUN 17	365.16	S	MAR 23	364.45	S
30	363.51	S	23	364.11	S	JUL 19	364.45	S	MAY 18	365.00	S
APR 20	363.34	S	OCT 27	364.42	S	AUG 01	364.68	S	JUL 24	365.09	S
MAY 01	363.41	S	DEC 01	364.50	S	SEP 06	364.93	S	SEP 14	365.65	S
25	363.62	S	28	364.01	S	13	364.82	S			
JUN 22	363.75	S	JAN 26. 1977	363.98	S	NOV 22	364.60	S			

WELL 01S 01E 06CCD1 SITE NUMBER 432127116231701

DRILLED UNUSED WATER-TABLE WELL IN IDAHO GROUP, DIAM 16 IN (41 CM), DEPTH 597 FT (182 M), CASED TO 597 FT (182 M), PERFORATED 442-487 FT (135-148 M), 530-582 FT (162-177 M), 585-597 FT (178-182 M). LSD ABOUT 2,965 FT (904 M) NGVD OF 1929. MAY 19, 1967, WELL HAD FILLED IN TO A DEPTH OF 560.3 FT (170.8 M). RECORDER INSTALLED MAY 22, 1967. RECORDER REMOVED SEPT. 27, 1971. MP NO. 1 TOP OF 16-IN (41-CM) CASING NORTHEAST SIDE, 0.90 FT (0.274 M) ABOVE LSD (SINCE DEC. 28, 1966).

RECORDS AVAILABLE 1966, 1967 - 1971, 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 433.30 FEET BELOW LAND SURFACE DATUM APR 24, 1974.

LOWEST WATER LEVEL 436.02 FEET BELOW LAND SURFACE DATUM DEC 28, 1966.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
JAN 14, 1976	434.10	S	JUL 21, 1976	433.89	S	MAY 19, 1977	434.15	S	JAN 16, 1978	433.61	S
FEB 14	433.78	S	AUG 26	434.20	S	JUN 17	434.05	S	MAR 23	433.79	S
MAR 23	433.89	S	SEP 19	434.04	S	JUL 19	433.92	S	MAY 22	433.91	S
30	434.29	S	23	433.84	S	AUG 01	435.57	S	JUL 24	433.95	S
APR 19	434.29	S	OCT 27	434.14	S	SEP 06	434.23	S	SEP 14	434.12	S
MAY 01	434.07	S	DEC 01	434.39	S	13	434.00	S			
24	433.82	S	28	433.96	S	NOV 22	433.77	S			
JUN 22	433.98	S	MAR 11, 1977	434.30	S	DEC 09	434.07	S			

WELL 01S 04E 30AAC1 SITE NUMBER 431839116010701

DRILLED UNUSED WATER-TABLE WELL IN BRUNEAU FORMATION, DIAM 12 IN (30 CM), DEPTH 750 FT (229 M), CASED TO 550 FT (168 M). LSD ABOUT 3,150 FT (960 M) NGVD OF 1929. MAY 24, 1967, WELL HAD FILLED IN TO A DEPTH OF 636.8 FT (194.1 M). RECORDER INSTALLED JUNE 5, 1967. RECORDER REMOVED NOV. 23, 1971. MP NO. 2 TOP OF CASING EAST SIDE, 3.00 FT (0.914 M) ABOVE LSD (SINCE JUNE 1, 1967).

RECORDS AVAILABLE 1967 - 1971, 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 483.64 FEET BELOW LAND SURFACE DATUM JUL 17, 1978.

LOWEST WATER LEVEL 487.98 FEET BELOW LAND SURFACE DATUM OCT 15, 1967.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
JAN 20, 1976	485.18	S	SEP 09, 1976	483.82	S	JUL 11, 1977	484.39	S	MAR 14, 1978	484.29	S
MAR 03	484.74	S	27	484.45	S	AUG 01	484.55	S	MAY 17	486.99	S
22	484.75	S	OCT 27	484.80	S	23	484.28	S	31	483.92	T
APR 20	484.78	S	NOV 30	484.78	S	SEP 06	484.49	S	JUL 17	483.64	T
MAY 25	484.69	S	DEC 27	484.53	S	19	484.18	S	SEP 11	484.02	S
JUN 23	484.82	S	JAN 22, 1977	484.58	S	NOV 21	484.15	S			
JUL 22	484.67	S	MAR 17	484.24	S	DEC 12	484.21	S			
AUG 30	484.70	S	MAY 17	484.37	S	JAN 19, 1978	484.13	S			

WELL 02S 01E 18DDA1 SITE NUMBER 431434116223201

DRILLED DOMESTIC WATER-TABLE WELL IN UNKNOWN AQUIFER, DIAM 24 IN (61 CM), REPORTED DEPTH 40 FT (12 M). CASING DEPTH NOT AVAILABLE. LSD ABOUT2,320 FT (707 M) NGVD OF 1929. MP NO. 1 TOP OF 3/4-IN (1.9-CM) PIPE IN CASING COVER, 8.30 FT (2.530M) BELOW LSD (SINCE MAR. 27, 1973).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 10.27 FEET BELOW LAND SURFACE DATUM MAR 23, 1976.

LOWEST WATER LEVEL 12.12 FEET BELOW LAND SURFACE DATUM SEP 27, 1971.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 23, 1976	10.27 H S	SEP 19, 1976	12.35 P S	JAN 17, 1977	N		

WELL 02S 04E 09DDD2 SITE NUMBER 431534115583502

DRILLED UNUSED WATER-TABLE WELL IN BRUNEAU FORMATION, DIAM 6 IN (15 CM), REPORTED DEPTH 600 FT (183 M), CASED TO 226 FT (69 M). LSD ABOUT 3,122 FT (952 M) NGVD OF 1929. JAN. 9, 1969, WELL HAD FILLED IN TO A DEPTH OF 570 FT (174 M). MP NO. 1 TOPOF 6-IN (15-CM) CASING, 0.80 FT (0.224 M) ABOVE LSD (SINCE DEC. 21, 1960).

RECORDS AVAILABLE 1960, 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 418.71 FEET BELOW LAND SURFACE DATUM SEP 19, 1977.

LOWEST WATER LEVEL 422.28 FEET BELOW LAND SURFACE DATUM DEC 21, 1960.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
MAR 03, 1976	419.16	S	AUG 30, 1976	419.28	S	JAN 22, 1977	419.15	S	NOV 21, 1977	418.87	S
22	419.15	S	SEP 09	419.26	S	MAR 17	418.75	S	JAN 19, 1978	418.99	S
APR 20	419.19	S	27	418.95	S	MAY 17	418.76	S	MAR 20	419.21	S
MAY 25	419.18	S	OCT 27	419.36	S	JUL 11	418.85	S	MAY 17	419.28	S
JUN 23	419.36	S	NOV 30	419.38	S	AUG 23	418.84	S	JUL 17	419.30	S
JUL 22	419.19	S	DEC 27	419.23	S	SEP 19	418.71	S	SEP 11	419.47	S

WELL 17N 01W 15AAC1 SITE NUMBER 444854116262301

DRILLED DOMESTIC WATER-TABLE WELL IN SEDIMENTS OF TERTIARY AGE, DIAM 6 IN (15 CM), REPORTED DEPTH 131 FT (39.9 M), CASED TO 109 FT (33.2 M), LSD ABOUT 3,115 FT (949 M) NGVD OF 1929. MP NO. 1 TOP OF 6-IN (15-CM) CASING, 1.50 FT (0.457 M) ABOVE LSD (SINCE APR. 4, 1974).

RECORDS AVAILABLE 1974 - 1975, 1976 TO CURRENT YEAR.

HIGHEST WATER LEVEL 95.07 FEET BELOW LAND SURFACE DATUM MAY 15, 1974.

LOWEST WATER LEVEL 97.89 FEET BELOW LAND SURFACE DATUM OCT 30, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
APR 04, 1974	95.37	S	MAR 05, 1975	96.55	S	FEB 05, 1976	97.37	V	AUG 04, 1977	97.69	S
MAY 15	95.07	S	APR 09	96.72	S	MAR 16	96.83	S	SEP 15	97.76	S
JUN 17	95.10	S	MAY 08	97.24	R S	APR 30	96.10	S	OCT 30	97.89	S
JUL 09	95.90	S	JUN 12	95.76	S	JUN 11	96.10	S	DEC 14	97.62	S
AUG 07	95.92	S	JUL 08	95.97	S	JUL 16	96.39	S	FEB 01, 1978	97.43	S
SEP 10	96.31	S	AUG 05	96.23	S	SEP 01	96.59	S	MAR 22	96.77	S
OCT 08	96.97	S	SEP 09	96.59	P S	DEC 08	96.88	S	APR 25	97.22	R S
NOV 11	96.85	S	23	96.49	S	JAN 12, 1977	98.09	S	JUN 08	97.00	S
DEC 04	96.44	S	OCT 08	98.39	R S	MAR 10	97.85	S	JUL 18	96.72	S
JAN 07, 1975	96.81	S	NOV 13	96.76	S	MAY 12	97.50	S	SEP 12	97.46	S
FEB 06	97.32	S	DEC 03	96.40	V S	JUN 23	97.74	S			

WELL 16N 01W 03DDD2 SITE NUMBER 444447116255701

DRILLED UNUSED WATER-TABLE WELL IN SEMICONSOLIDATED GRAVEL OF QUATERNARY AGE, DIAM 12 IN (30 CM), DEPTH 78.6 FT (24.0 M), CASED TO 7 FT (2 M), PERFORATED 2-6 FT (0.6-1.8 M). LSD ABOUT 2,985 FT (910 M) NGVD OF 1929. MP NO. 1 TOP OF 12-IN (30-CM) CASING SOUTH SIDE, 0.80 FT (0.244 M) ABOVE LSD (SINCE NOV. 30, 1961).

RECORDS AVAILABLE 1961, 1967 - 1973, 1974 - 1975, 1976 TO CURRENT YEAR.

HIGHEST WATER LEVEL 0.40 FEET BELOW LAND SURFACE DATUM DEC 14, 1977.

LOWEST WATER LEVEL 13.52 FEET BELOW LAND SURFACE DATUM JUL 22, 1968.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
FEB 05, 1976	1.47	S	DEC 08, 1976	2.86	S	SEP 14, 1977	10.19	S	MAR 22, 1978	1.48	S
MAR 16	0.74	S	JAN 12, 1977	3.07	S	15	9.29	S	APR 25	1.41	S
APR 30	2.04	S	MAR 10	1.40	S	OCT 30	2.72	S	JUN 08	5.09	S
JUN 11	4.59	S	MAY 12	1.89	S	DEC 06	1.49	S	JUL 18	8.72	S
JUL 16	8.26	S	JUN 23	6.76	S	14	0.40	S	SEP 12	2.99	S
SEP 01	6.44	S	AUG 03	10.94	S	FEB 01, 1978	1.20	S			

WELL 16N 01W 22HAA1 SITE NUMBER 444256116263401

DRILLED IRRIGATION WATER-TABLE WELL IN COLUMBIA RIVER GROUP, DIAM 10 IN (25 CM), REPORTED DEPTH 390 FT (118.9 M), CASED TO 28 FT (8.5 M). LSD ABOUT 2,950 FT (899 M) NGVD OF 1929. MP NO. 1 HOLE IN CASING COVER EAST SIDE, 0.40 FT (0.121 M) ABOVE LSD (SINCE JULY 9, 1974).

RECORDS AVAILABLE 1974, 1975, 1976 TO CURRENT YEAR.

HIGHEST WATER LEVEL 56.33 FEET BELOW LAND SURFACE DATUM APR 30, 1976.

LOWEST WATER LEVEL 62.88 FEET BELOW LAND SURFACE DATUM AUG 03, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
JUL 09, 1974	57.96	S	JUN 12, 1976	58.12	S	MAY 12, 1977	59.04	S	FEB 01, 1978	57.99	S
AUG 12, 1975	163.94	P V	JUL 16	163.64	P V	JUN 23	62.61	R S	MAR 22	57.35	S
SEP 23	70.70	R S	SEP 01	158.40	P V	AUG 03	62.88	S	APR 25	57.03	S
FEB 05, 1976	57.57	V	DEC 08	58.39	S	SEP 15	62.37	S	JUN 08	159.92	P S
MAR 16	57.11	S	JAN 12, 1977	58.33	S	OCT 30	60.10	S	JUL 18	161.30	P S
APR 30	56.33	S	MAR 10	58.14	S	DEC 14	58.63	S	SEP 12	61.15	S

WELL 15N 01W 22BAD1 SITE NUMBER 443736116263701

DRILLED DOMESTIC WATER-TABLE WELL IN SEDIMENTS OF QUATERNARY AGE. DIAM 8 IN (20.3 CM). REPORTED DEPTH 175 FT (53.3 M). CASED TO 84 FT (25.6 M). LSD ABOUT 3,260 FT (993 M) NGVD OF 1929. MP NO. 1 TOP OF CASING NORTHEAST SIDE. 0.50 FT (0.152 M) ABOVE LSD (SINCE APR. 17, 1975).

RECORDS AVAILABLE 1975, 1976 TO CURRENT YEAR.

HIGHEST WATER LEVEL 112.61 FEET BELOW LAND SURFACE DATUM APR 17, 1975.

LOWEST WATER LEVEL 118.65 FEET BELOW LAND SURFACE DATUM SEP 12, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
APR 17, 1975	112.61	S	SEP 09, 1975	113.73	S	JAN 12, 1977	114.55		FEB 01, 1978	117.41	S
MAY 08	112.82	S	23	113.92	S	APR 07	115.13	S	MAR 22	117.56	S
JUN 12	115.46 R	S	OCT 08	113.82	S	AUG 04	116.27	S	APR 15	117.69	S
JUL 08	113.85	S	JUN 11, 1976	114.29	S	SEP 15	116.76	S	JUN 08	118.19	S
AUG 05	115.23 R	S	JUL 16	115.68	S	OCT 30	116.83	S	JUL 18	121.05 R	S
12	114.63	S	SEP 01	116.66 R	S	DEC 14	117.01	S	SEP 12	118.65	S

WELL 14N 01W 11CCC1 SITE NUMBER 443332116255501

DRILLED DOMESTIC WATER-TABLE WELL IN COLUMBIARIVER GROUP. DIAM 6 IN (15 CM). REPORTED DEPTH 163 FT (50 M). CASED TO 24 FT (7 M). LSD ABOUT 3,000FT (914 M) NGVD OF 1929. MP NO. 1 HOLE IN CASING SOUTH SIDE. 0.40 FT (0.122 M) ABOVE LSD (SINCE MAR.23, 1967).

RECORDS AVAILABLE 1967 - 1973, 1974 TO CURRENT YEAR, 1976 TO CURRENT YEAR.

HIGHEST WATER LEVEL 4.02 FEET BELOW LAND SURFACE DATUM MAR 16, 1976.

LOWEST WATER LEVEL 10.36 FEET BELOW LAND SURFACE DATUM SEP 10, 1969.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
MAR 16, 1976	4.02	S	DEC 06, 1976	7.32	S	JUN 23, 1977	7.94	S	MAR 22, 1978	4.39	S
JUL 16	6.46	S	JAN 12, 1977	7.57	S	AUG 04	8.37	S	SEP 12	6.95	S
SEP 01	6.52	S	MAR 10	8.06	S	SEP 15	6.49	S			

WELL 09N 04E 22BDD1 SITE NUMBER 440602115580301

DRILLED DOMESTIC WATER-TABLE WELL IN COARSE SAND AND GRAVEL OF QUATERNARY AGE, DIAM 6 IN (15 CM). REPORTED DEPTH 111 FT (34 M), CASING DEPTH NOT AVAILABLE. LSD ABOUT 3,100 FT (945 M) NGVD OF 1929. MP NO. 1 ACCESS HOLE IN TOP OF 6-IN (15-CM) CASING, 0.80 FT (0.244 M) ABOVE LSD (SINCE APR. 24, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 53.96 FEET BELOW LAND SURFACE DATUM JUL 12, 1971.

LOWEST WATER LEVEL 57.80 FEET BELOW LAND SURFACE DATUM JAN 22, 1968.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
JAN 19, 1976	55.40	S	MAR 14, 1977	56.01	S	SEP 09, 1977	56.82	S	APR 28, 1978	55.77	S
MAR 03	55.29	S	MAY 18	54.62	S	NOV 25	56.91	S	JUN 13	55.49	S
APR 15	54.61	S	JUN 30	56.49	S	DEC 07	56.37	S	JUL 26	55.55	S
MAY 18	54.56	S	JUL 21	56.67 R	S	JAN 17, 1978	56.09	S	SEP 15	55.51	S
JUN 24	55.09	S	AUG 01	56.35	S	MAR 24	56.02	S			
SEP 11	54.63	S	SEP 08	56.84	S	28	55.73	S			

WELL 06N 05W 30BAB1 SITE NUMBER 435007116591501

DRILLED IRRIGATION WATER-TABLE WELL IN ALLUVIAL SAND OF QUATERNARY AGE. DIAM 12 IN (30 CM). REPORTED DEPTH 169 FT (51.5 M). CASED TO 135 FT (41.2 M). LSD ABOUT 2,225 FT (678 M) NGVD OF 1929. MP NO. 1 HOLE IN PUMPBASE WEST SIDE. 1.00 FT (0.305 M)ABOVE LSD (SINCE JAN. 9, 1967).

RECORDS AVAILABLE 1967 - 1970, 1971 TO CURRENT YEAR.

HIGHEST WATER LEVEL 25.17 FEET BELOW LAND SURFACE DATUM SEP 10, 1968.

LOWEST WATER LEVEL 35.16 FEET BELOW LAND SURFACE DATUM MAY 27, 1969.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 17, 1976	29.72 V S	JUN 08, 1976	27.72 V S	JUL 19, 1977	27.90 V S	MAR 22, 1978	30.11 S
FEB 16	29.91 V S	SEP 17	26.47 V S	SEP 15	27.18 V S	MAY 23	29.04 S
MAR 17	30.10 V S	MAR 09, 1977	30.59 V S	NOV 28	28.80 V S	JUL 20	25.60 S
MAY 08	28.86 V S	MAY 19	29.86 V S	JAN 18, 1978	29.61 S	SEP 18	26.46 S

WELL 05N 05W 18CAC1 SITE NUMBER 434603116590901

DRILLED DOMESTIC WATER-TABLE WELL IN UNKNOWN AQUIFER. DIAM 6 IN (15 CM). REPORTED DEPTH 250 FT (76.2 M). CASING DEPTH NOT AVAILABLE. LSD ABOUT 2,225 FT (678 M) NGVD OF 1929. MP NO. 1 HOLE IN TOP OF 6-IN (15-CM) CASING SOUTH SIDE. 1.50 FT (0.457 M) ABOVE LSD (SINCE JAN. 5, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 7.50 FEET BELOW LAND SURFACE DATUM SEP 07, 1973.

LOWEST WATER LEVEL 13.90 FEET BELOW LAND SURFACE DATUM MAR 20, 1968.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 17, 1976	12.55 R S	AUG 22, 1977	11.89 P T	DEC 08, 1977	14.03 R S		
SEP 17	11.18 P S	SEP 12	9.66 R S	MAR 22, 1978	12.53 S		
MAR 08, 1977	14.95 P S	15	10.05 R S	SEP 19	10.27 S		

WELL 05N 05W 24DBB1 SITE NUMBER 434522116524601

DRILLED UNUSED DEWATERING WATER-TABLE WELL INUNKNOWN AQUIFER. DIAM 18 IN (46 CM). DEPTH 98 FT (29.9 M). CASING DEPTH NOT AVAILABLE. LSD ABOUT 2,300 FT (701 M) NGVD OF 1929. RECORDER INSTALLED MAY 12, 1967. RECORDER REMOVED NOV. 24, 1971.MP NO. 1 TOP OF 18-IN (46-CM) CASING SOUTHEAST SIDE AT LSD (SINCE JAN. 9, 1967).

RECORDS AVAILABLE 1967 - 1971, 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 8.33 FEET BELOW LAND SURFACE DATUM JUL 10, 1968.

LOWEST WATER LEVEL 10.97 FEET BELOW LAND SURFACE DATUM MAR 14, 1975.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 17, 1976	10.64 S	MAR 09, 1977	10.37 S	MAR 22, 1978	10.54 N S		
SEP 17	9.35 S	SEP 15	10.04 S				

WELL 05N 04W 13BCB1 SITE NUMBER 434627116461801

DRILLED DOMESTIC WATER-TABLE WELL IN UNKNOWN AQUIFER, DIAM 4 IN (10 CM), DEPTH 105 FT (32.0 M). CASING DEPTH NOT AVAILABLE. LSD ABOUT 2,395 FT (730 M) NGVD OF 1929. MP NO. 1 TOP OF 4-IN (10-CM) CASING, 0.50 FT (0.152 M) ABOVE LSD (SINCE JAN. 11, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 16.08 FEET BELOW LAND SURFACE DATUM SEP 16, 1969.

LOWEST WATER LEVEL 21.40 FEET BELOW LAND SURFACE DATUM MAR 24, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 17, 1976	20.21 S	MAR 09, 1977	21.30 S	MAR 24, 1978	21.40 S		
SEP 17	18.48 S	SEP 15	19.62 S	SEP 18	18.46 S		

WELL 05N 03W 11BCA1 SITE NUMBER 434723116400001

FORMERLY SITE ID NO. 434723116401601. DRILLEDIRRIGATION WATER-TABLE WELL IN IDAHO GROUP, DIAM 16 TO 12 IN (41 TO 30 CM), REPORTED DEPTH 365 FT (111.2 M), 16-IN (41-CM) CASING 0-325 FT (0-99.1 M), 12-IN (30-CM) CASING 310-350 FT (94.5-106.7 M), PERFORATED 311-349 FT (94.8-106.4 M). LSD ABOUT 2,625 FT (800 M) NGVD OF 1929. APR.8, 1974, WELL HAD FILLED IN TO A DEPTH OF 346.2 FT (105.5 M), SEPT. 23, 1977, WELL HAD FILLED INTO A DEPTH OF 303.6 FT (92.5 M). MP NO. 4 1/2-IN (1.3-CM) HOLE IN CASING COVER NORTHEAST SIDE,1.46 FT (0.445 M) ABOVE LSD (SINCE AUG. 23, 1978).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 153.60 FEET BELOW LAND SURFACE DATUM MAR 09, 1977.

LOWEST WATER LEVEL 173.13 FEET BELOW LAND SURFACE DATUM AUG 23, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
SEP 17, 1976	154.08 S	SEP 15, 1977	158.45 S	SEP 19, 1978	167.92 S		
MAR 09, 1977	153.60 S	AUG 23, 1978	173.13 S				

WELL 05N 02W 22CAD1 SITE NUMBER 434514116334501

FORMERLY SITE ID NO. 434601116342601, WELL NO. 05N 02W 22CAA 1. DRILLED IRRIGATION WATER-TABLE WELL IN IDAHO GROUP, DIAM 12 TO 8 IN (30 TO 20 CM), REPORTED DEPTH 450 FT (137.2 M), 12-IN (30-CM) CASING 0-303 FT (0-92.4 M), 8-IN (20-CM) CASING 284-403 FT (86.6-122.8 M), PERFORATED 279-403 FT (85.0-122.8 M). LSD ABOUT 2,610 FT (796 M) NGVD OF 1929. MP NO. 1 TOP OF 1 1/2-IN (3.8-CM) VERTICAL ACCESS PIPE ON SOUTH SIDE OF PUMP, 1.50 FT (0.457 M) ABOVE LSD (SINCE FEB. 21, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 181.53 FEET BELOW LAND SURFACE DATUM MAR 09, 1977.

LOWEST WATER LEVEL 185.87 FEET BELOW LAND SURFACE DATUM FEB 21, 1967.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 17, 1976	181.63 V S	MAR 09, 1977	181.53 V S	SEP 19, 1978	184.20 S		
SEP 17	183.89 V S	MAR 24, 1978	181.74 V S				

WELL 04N 05W 07DCD1 SITE NUMBER 434132116584001

DRILLED IRRIGATION WATER-TABLE WELL IN IDAHO GROUP. DIAM 12 IN (30 CM). REPORTED DEPTH 100 FT (30.5 M). CASED TO 100 FT (30.5 M). PERFORATED 64-100 FT (19.5-30.5 M). GRAVEL PACKED. LSD ABOUT 2,392 FT (729 M) NGVD OF 1929. MP NO. 1 BOTTOM EDGE OF SLOPING PIPE. 1.00 FT (0.305 M) ABOVE LSD (SINCE MAR. 16, 1971).

RECORDS AVAILABLE 1971 TO CURRENT YEAR.

HIGHEST WATER LEVEL 11.22 FEET BELOW LAND SURFACE DATUM SEP 17, 1976.

LOWEST WATER LEVEL 16.48 FEET BELOW LAND SURFACE DATUM MAR 22, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 17, 1976	15.13 S	MAR 08, 1977	15.07 S	MAR 22, 1978	16.48 S		
SEP 17	11.22 S	SEP 15	13.95 S	SEP 19	56.05 P S		

WELL 04N 04W 05DDB1 SITE NUMBER 434232116501001

DRILLED STOCK ARTESIAN WELL IN UNKNOWN AQUIFER. DIAM 4 IN (10 CM). DEPTH 178 FT (54.2 M). CASING DEPTH NOT AVAILABLE. LSD ABOUT 2,284 FT (696 M) NGVD OF 1929. MP NO. 1 TOP OF 4-IN (10-CM) CASING CAP. 2.30 FT (0.701 M) ABOVE LSD (SINCE JAN. 18, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 6.62 FEET ABOVE LAND SURFACE DATUM MAR 16, 1976.

LOWEST WATER LEVEL 3.05 FEET ABOVE LAND SURFACE DATUM JAN 18, 1967.

WATER LEVELS IN FEET ABOVE LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 17, 1976	4.30 E M	JUN 08, 1976	4.36 E M	JUL 19, 1977	5.09 E M	MAR 24, 1978	4.55 M
FEB 16	6.40 E M	SEP 17	6.02 E M	SEP 15	4.94 M	MAY 23	4.78 M
MAR 16	6.62 E M	MAR 09, 1977	3.80 E M	NOV 29	4.62 E M	JUL 20	4.87 M
MAY 08	5.64 E M	MAY 19	5.46 E M	JAN 18, 1978	4.73 M	SEP 19	5.08 M

WELL 04N 04W 32DBB1 SITE NUMBER 433824116502901

DRILLED IRRIGATION WATER-TABLE WELL IN TERRACE DEPOSITS OF QUATERNARY AGE. DIAM 12 IN (30 CM). REPORTED DEPTH 155 FT (47.2 M). CASED TO 148 FT (45.1 M). PERFORATED 28-118 FT (8.5-36.0 M). SCREENED 118-148 FT (36.0-45.1 M). GRAVEL PACKED 0-155 FT (0-47.2 M). LSD ABOUT 2,530 FT (771 M) NGVD OF 1929. MP NO. 2 TOP OF CASING SOUTH SIDE. 1.00 FT (0.305 M) ABOVE LSD (SINCE SEPT. 16, 1970).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 23.35 FEET BELOW LAND SURFACE DATUM SEP 13, 1974.

LOWEST WATER LEVEL 50.16 FEET BELOW LAND SURFACE DATUM SEP 11, 1968.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 18, 1976	33.58 S	MAR 08, 1977	32.89 S	MAR 24, 1978	36.90 N S		
SEP 20	25.52 S	SEP 16	30.38 S				

WELL 04N 03W 13BAA1 SITE NUMBER 434128116383601

DRILLED STOCK ARTESIAN WELL IN IDAHO GROUP. DIAM 6 IN (15 CM). REPORTED DEPTH 185 FT (56.4 M). CASED TO 181 FT (55.2 M). LSD ABOUT 2,370 FT (722 M) NGVD OF 1929. MP NO. 1 TOP OF 2-IN (5-CM) ADAPTER. 0.80 FT (0.244 M) ABOVE LSD (SINCE FEB. 21, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 7.80 FEET ABOVE LAND SURFACE DATUM JUL 14, 1970.

LOWEST WATER LEVEL 4.62 FEET ABOVE LAND SURFACE DATUM JUL 23, 1975.

WATER LEVELS IN FEET ABOVE LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 17, 1976	6.04 E M	JUN 08, 1976	5.72 E M	JUL 14, 1977	4.55 E M	MAR 31, 1978	4.63 E M
FEB 16	5.30 E M	SEP 17	5.63 E M	SEP 23	5.28 E M	MAY 23	4.43 E M
MAR 17	3.62 E M	MAR 09, 1977	4.48 E M	NOV 30	5.46 E M	JUL 20	4.42 E M
MAY 14	5.47 E M	MAY 19	4.67 E M	JAN 18, 1978	5.12 E M	SEP 18	4.83 E M

WELL 04N 02W 34BDC1 SITE NUMBER 433830116335901

DRILLED UNUSED WATER-TABLE WELL IN YOUNGER TERRACE GRAVEL. DIAM 16 IN (41 CM). REPORTED DEPTH 150 FT (45.7 M). CASING DEPTH NOT AVAILABLE. LSD ABOUT 2,462 FT (750 M) NGVD OF 1929. MP NO. 2 HOLE INSIDE PUMPBASE NORTH SIDE. 1.50 FT (0.457 M) ABOVE LSD (SINCE SEPT. 13, 1968).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 7.94 FEET BELOW LAND SURFACE DATUM SEP 14, 1970.

LOWEST WATER LEVEL 13.35 FEET BELOW LAND SURFACE DATUM JUN 17, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 18, 1976	12.20 S	JUN 17, 1977	13.35 S	SEP 12, 1977	10.77 S	MAR 31, 1978	11.85 N S
SEP 25	10.76 S	JUL 05	13.25 S	16	11.74 S		
MAR 08, 1977	13.03 S	AUG 04	12.55 S	DEC 08	11.82 S		

WELL 03N 04W 11ADA1 SITE NUMBER 433646116461801

DRILLED OBSERVATION WATER-TABLE WELL IN ALLUVIUM OF QUATERNARY AGE. DIAM 6 TO 4 IN (15 TO 10 CM). DEPTH 91 FT (27.7 M). 6-IN (15-CM) CASING 0-95 FT (0-29.0 M). 4-IN (10-CM) CASING 94-99.5 FT (28.6-30.3 M). PERFORATED 94-99.5 FT (28.6-30.3 M). OPEN BOTTOM. LSD ABOUT 2,497 FT (761 M) NGVD OF 1929. RECORDER INSTALLED AUG. 20, 1953. RECORDER REMOVED OCT. 20, 1954. RECORDER INSTALLED MAY 12, 1967. RECORDER REMOVED NOV. 24, 1971. MP NO. 1 TOP OF CASING. 0.60 FT (0.183 M) ABOVE LSD (SINCE AUG. 19, 1953).

RECORDS AVAILABLE 1953 - 1954, 1955 - 1966, 1967 - 1971, 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 5.89 FEET BELOW LAND SURFACE DATUM AUG 26, 1953.

LOWEST WATER LEVEL 18.38 FEET BELOW LAND SURFACE DATUM MAY 23, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 17, 1976	12.65 S	SEP 20, 1976	9.28 S	SEP 12, 1977	14.39 S	MAY 23, 1978	18.38 S
FEB 16	13.03 S	MAR 08, 1977	13.64 S	16	13.16 S	JUL 20	13.27 S
MAR 18	13.49 S	MAY 19	14.33 S	NOV 29	13.93 S	SEP 19	12.55 S
MAY 08	15.47 S	JUN 23	15.46 S	DEC 08	14.13 S		
JUN 08	11.61 S	JUL 19	18.33 S	JAN 18, 1978	14.53 S		
JUL 26	9.99 S	AUG 04	17.72 S	MAR 24	14.97 S		

WELL 03N 03W 3BCB2 SITE NUMBER 433745116412501

DRILLED OBSERVATION WATER-TABLE WELL IN SAND AND GRAVEL OF QUATERNARY AGE, DIAM 6 TO 4 IN (15 TO 10 CM), DEPTH 94 FT (28.6 M), 6-IN (15-CM) CASING 0-84 FT (0-25.6 M), 4-IN (10-CM) SCREEN 84-94.5 FT (25.6-28.8 M). LSD ABOUT 2,429 FT (740 M) NGVD OF 1929. RECORDER INSTALLED OCT. 19, 1953. RECORDER REMOVED AUG. 20, 1954. MP NO. 2 TOP OF 1/4-IN (0.64-CM) PLUG HOLE IN CASING CAP, 8.00 FT (2.438 M) BELOW LSD (SINCE SEPT. 28, 1961).

RECORDS AVAILABLE 1953 - 1954, 1955 TO CURRENT YEAR.

HIGHEST WATER LEVEL 4.98 FEET BELOW LAND SURFACE DATUM SEP 05, 1975.

LOWEST WATER LEVEL 17.68 FEET BELOW LAND SURFACE DATUM MAR 24, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
MAR 18, 1976	16.26	S	MAR 08, 1977	16.22	S	MAR 24, 1978	17.68	S			
SEP 25	13.55	S	SEP 16	17.44	S	SEP 19	16.65	S			

WELL 03N 02W 07CBC1 SITE NUMBER 433633116375101

DRILLED DOMESTIC WATER-TABLE WELL IN YOUNGER TERRACE GRAVEL, DIAM 8 IN (20 CM). REPORTED DEPTH 196 FT (59.7 M), CASED TO 196 FT (59.7 M), PERFORATED 185-196 FT (56.4-59.7 M). LSD ABOUT 2,436 FT (742 M) NGVD OF 1929. MP NO. 1 TOP OF HOLE INWELL SEAL, 1.00 FT (0.305 M) ABOVE LSD (SINCE NOV. 3, 1969).

RECORDS AVAILABLE 1969 TO CURRENT YEAR.

HIGHEST WATER LEVEL 3.10 FEET BELOW LAND SURFACE DATUM SEP 27, 1971.

LOWEST WATER LEVEL 7.34 FEET BELOW LAND SURFACE DATUM MAR 09, 1970.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
MAR 18, 1976	6.26	S	MAR 08, 1977	6.56	S	MAR 24, 1978	6.43	N S			
SEP 25	3.65	S	SEP 16	4.85	S						

WELL 03N 01W 07BCB1 SITE NUMBER 433658116304001

DRILLED OBSERVATION WATER-TABLE WELL IN YOUNGER TERRACE GRAVEL, DIAM 6 TO 4 IN (15 TO 10 CM), DEPTH 51 FT (15.5 M), 6-IN (15-CM) CASING 0-46 FT (0-14.0 M), 4-IN (10-CM) CASING 46-51 FT (14.0-15.5 M), PERFORATED 46-51 FT (14.0-15.5 M), GRAVEL PACKED 50-51 FT (15.2-15.5 M). LSD 2,494.87 FT (760.436 M) NGVD OF 1929. RECORDER INSTALLED DEC. 11, 1953. RECORDER REMOVED OCT. 15, 1954. MP NO. 2 TOP OF 1-IN (2.5-CM) PLUG HOLE IN CENTER OF CASING COVER,0.90 FT (0.274 M) ABOVE LSD (SINCE SEPT. 9, 1975).

RECORDS AVAILABLE 1953 - 1954, 1955 - 1962, 1963 - 1967, 1968 TO CURRENT YEAR.

HIGHEST WATER LEVEL 2.44 FEET BELOW LAND SURFACE DATUM NOV 26, 1963.

LOWEST WATER LEVEL 9.59 FEET BELOW LAND SURFACE DATUM JUN 20, 1954.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
MAR 17, 1976	3.42	S	MAR 08, 1977	3.53	S	AUG 22, 1977	7.56	S	DEC 08, 1977	3.31	S
JUL 26	7.87	S	JUN 16	7.40	S	SEP 12	8.29	S	MAR 31, 1978	3.54	S
SEP 25	9.22	S	JUL 05	4.28	S	16	7.39	S			

WELL 02N 03W 06DBO1 SITE NUMBER 433208116441501

DRILLED UNUSED WATER-TABLE WELL IN IDAHO GROUP, DIAM 4 IN (10 CM), DEPTH 246.3 FT (75.1 M), CASING DEPTH NOT AVAILABLE. LSD 2,613.78 FT (796.681M) NGVD OF 1929. MP NO. 2 TOP OF HOLE IN WOODEN PLATFORM, 0.80 FT (0.244 M) ABOVE LSD (SINCE APR. 12, 1956).

RECORDS AVAILABLE 1925, 1953 - 1971, 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 180.00 FEET BELOW LAND SURFACE DATUM NOV 05, 1925.

LOWEST WATER LEVEL 221.33 FEET BELOW LAND SURFACE DATUM MAY 19, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
JAN 17, 1976	217.67	S	JUN 08, 1976	219.58	S	JUN 17, 1977		U	JAN 18, 1978		O
FEB 16	217.57	S	SEP 20	220.38	S	JUL 13		U	MAR 24		O
MAR 18	217.78	S	MAR 15, 1977	219.71	S	SEP 23		U	JUL 20		N
MAY 08	218.72	S	MAY 19	221.33	S	NOV 29		U			

WELL 02N 03W 22DDC1 SITE NUMBER 432919116403701

DRILLED IRRIGATION WATER-TABLE WELL IN IDAHO GROUP, DIAM 14 IN (36 CM), REPORTED DEPTH 603 FT (183.8 M), CASED TO 580 FT (176.8 M), PERFORATED 400-580 FT (121.9-176.8 M), GRAVEL PACKED 0-580 FT (0-176.8 M). LSD ABOUT 2,750 FT (838 M) NGVD OF 1929. MP NO. 1 TOP OF 3/4-IN (1.9-CM) SLANTED ACCESS PIPE ON SOUTHWEST SIDE OF PUMP, 0.90 FT (0.274 M) ABOVE LSD (SINCE APR. 27, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 313.00 FEET BELOW LAND SURFACE DATUM APR 27, 1967.

LOWEST WATER LEVEL 358.78 FEET BELOW LAND SURFACE DATUM SEP 23, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
MAR 18, 1976	339.31	S	JUN 24, 1977	383.59	P S	SEP 23, 1977	358.78	S	SEP 19, 1978	358.49	S
SEP 20	350.80	S	JUL 05		P	DEC 08	352.93	S			
MAR 15, 1977	343.80	S	AUG 01	381.60	P S	MAR 24, 1978	349.43	S			

WELL 02N 02W 23CBB1 SITE NUMBER 432941116330601

DRILLED UNUSED WATER-TABLE WELL IN ALLUVIUM OF QUATERNARY AGE, DIAM 4 IN (10 CM), DEPTH 165 FT (50.3 M), CASING DEPTH NOT AVAILABLE. LSD ABOUT 2,655 FT (809 M) NGVD OF 1929. MP NO. 1 TOP OF 4-IN (10-CM) CASING NORTH SIDE, 5.50 FT (1.676 M) BELOW LSD (SINCE DEC. 29, 1966).

RECORDS AVAILABLE 1953, 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 107.47 FEET BELOW LAND SURFACE DATUM SEP 16, 1969.

LOWEST WATER LEVEL 113.20 FEET BELOW LAND SURFACE DATUM NOV 27, 1953.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL
MAR 18, 1976	108.42	S	MAR 15, 1977	110.05	S	MAR 24, 1978	116.45	S S		
SEP 20	109.02	S	SEP 23	125.14	S S	MAY 15		N		

WELL 02N 01W 07BBC1 SITE NUMBER 433145116304301

DRILLED OBSERVATION WATER-TABLE WELL IN SNAKERIVER GROUP. DIAM 6 TO 4 IN (15 TO 10 CM). DEPTH 103.0 FT (31.4 M). 6-IN (15-CM) CASING 0-97 FT (0-29.6 M). 4-IN (10-CM) CASING 96-102 FT (29.3-31.1 M). PERFORATED 96-102 FT (29.3-31.1 M). LSD 2,547.92 FT (776.606 M) NGVD OF 1929. RECORDER INSTALLED AUG. 19, 1953. RECORDER REMOVED NOV. 24, 1971. MP NO. 2 TOP OF NIPPLE IN CASING CAP, 0.66 FT (0.201 M) ABOVE LSD (SINCE JULY 3, 1978).

RECORDS AVAILABLE 1953 - 1971, 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 5.80 FEET BELOW LAND SURFACE DATUM OCT 12, 1960.

LOWEST WATER LEVEL 16.09 FEET BELOW LAND SURFACE DATUM JAN 18, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
JAN 17, 1976	11.81	S	SEP 20, 1976	9.69	S	AUG 04, 1977	12.39	S	MAR 24, 1978	14.90	S
FEB 16	12.37	S	MAR 15, 1977	13.33	S	SEP 23	10.97	S	MAY 23	14.49	S
MAR 18	12.49	S	MAY 19	14.82	S	NOV 29	14.61	S	JUL 03	11.73	S
MAY 08	13.38	S	JUN 29	14.42	S	DEC 08	14.95	S	19	11.31	S
JUN 08	11.90	S	JUL 14	12.96	S	JAN 18, 1978	16.09	S	SEP 19	10.03	S

WELL 01N 02W 05ADD1 SITE NUMBER 432708116353901

DRILLED IRRIGATION WATER-TABLE WELL IN IDAHO GROUP. DIAM 12 TO 10 IN (30 TO 25 CM). REPORTED DEPTH 720 FT (219.5 M). 12-IN (30-CM) CASING 0-423 FT (0-128.9 M). 10-IN (25-CM) CASING 415-625 FT (126.5-190.5 M). PERFORATED 415-625 FT (126.5-190.5 M). LSD ABOUT 2,675 FT (815 M) NGVD OF 1929. MP NO. 1 BOTTOM EDGE OF ACCESS HOLE IN SOUTH SIDE OF CASING, 0.40 FT (0.122 M) ABOVE LSD (SINCE APR. 18, 1967).

RECORDS AVAILABLE 1967 - 1970, 1971 TO CURRENT YEAR.

HIGHEST WATER LEVEL 127.66 FEET BELOW LAND SURFACE DATUM SEP 23, 1977.

LOWEST WATER LEVEL 201.76 FEET BELOW LAND SURFACE DATUM AUG 28, 1967.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
MAR 18, 1976	129.58	S	SEP 19, 1976	165.12	V S	SEP 23, 1977	127.66	V S	SEP 19, 1978	157.32	S
JUN 08	265.77	P S	MAR 15, 1977	128.99	V S	MAR 23, 1978	131.26	V S			

WELL 01S 02W 14CCC2 SITE NUMBER 431948116330001

DRILLED DOMESTIC AND STOCK WATER-TABLE WELL IN IDAHO GROUP. DIAM 6 IN (15 CM). REPORTED DEPTH 235 FT (71.6 M). CASING DEPTH NOT AVAILABLE. LSD ABOUT 2,390 FT (728 M) NGVD OF 1929. MP NO. 1 TOP OF 5/8-IN (0.95-CM) TAP HOLE IN WELL SEAL, 8.00 FT (2.438 M) BELOW LSD (SINCE OCT. 26, 1962).

RECORDS AVAILABLE 1962 TO CURRENT YEAR.

HIGHEST WATER LEVEL 42.42 FEET BELOW LAND SURFACE DATUM SEP 28, 1966.

LOWEST WATER LEVEL 74.87 FEET BELOW LAND SURFACE DATUM MAR 15, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
MAR 18, 1976	74.12	S	JUN 24, 1977	73.27	S	SEP 13, 1977	70.93	S	SEP 22, 1978	69.62	R S
SEP 19	69.20	P S	JUL 05	74.11	S	23	70.72	S			
MAR 15, 1977	74.87	S	AUG 01	73.96	P S	MAR 23, 1978	76.07	R S			

WELL 15N 20E 01ADC1 SITE NUMBER 443942114021301

DRILLED DOMESTIC WATER-TABLE WELL IN ALLUVIUMOF QUATERNARY AGE, DIAM 6 IN (15 CM), DEPTH 62.8 FT (19.1 M), CASING DEPTH NOT AVAILABLE. LSD ABOUT 4,748 FT (1,447 M) NGVD OF 1929. MP NO. 2 TOP OF 6-IN (15-CM) CASING WEST SIDE, 0.60 FT (0.183M) ABOVE LSD (SINCE APR. 10, 1974).

RECORDS AVAILABLE 1971, 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 33.40 FEET BELOW LAND SURFACE DATUM JUL 29, 1971.

LOWEST WATER LEVEL 49.31 FEET BELOW LAND SURFACE DATUM MAR 12, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
JAN 09, 1976	44.32	S	SEP 18, 1976	37.47		AUG 05, 1977	37.82	S	MAR 11, 1978	44.77	S
FEB 21	44.32	S	MAR 12, 1977	49.31	S	SEP 13	34.40	S	JUN 08	37.54	S
MAR 26	44.34	S	APR 18	45.58	S	OCT 19	41.93	S	28	34.34	S
MAY 14	45.33	S	MAY 18	37.35	S	DEC 09	44.24	S	AUG 08	37.60	S
JUN 18	35.90	S	JUN 23	33.52	S	JAN 21, 1978	45.04	S	SEP 13	37.08	S

WELL 12N 23E 02BBC1 SITE NUMBER 442412113423601

DRILLED IRRIGATION WATER-TABLE WELL IN ALLUVIUM OF QUATERNARY AGE, DIAM 20 IN (51 CM), DEPTH 127.7 FT (38.9 M), CASING DEPTH NOT AVAILABLE, PERFORATED INTERVAL NOT AVAILABLE. LSD ABOUT 5,908 FT (1,801 M) NGVD OF 1929. MP NO. 1 HOLE IN PUMPBASE SOUTHWEST SIDE, 1.20 FT (0.366 M) ABOVE LSD (SINCE APR. 30, 1971).

RECORDS AVAILABLE 1971, 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 16.71 FEET BELOW LAND SURFACE DATUM JUN 23, 1977.

LOWEST WATER LEVEL 31.77 FEET BELOW LAND SURFACE DATUM MAR 01, 1972.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
JAN 09, 1976	31.45	S	SEP 18, 1976	22.31	S	SEP 13, 1977	25.26	S	JUN 08, 1978	29.24	S
FEB 21	31.67	S	MAR 12, 1977	27.80	S	OCT 21	27.42	S	28	17.81	S
MAR 26	31.53	S	APR 18	27.85	S	DEC 09	28.64	S	AUG 08	20.56	S
MAY 14	28.89	S	MAY 18	27.95	S	JAN 21, 1978	29.09	S	SEP 13	18.84	S
JUN 18	22.36	S	JUN 23	16.71	S	MAR 11	29.31	S			

WELL 01N 04E 23AAB1 SITE NUMBER 432453115561601

DRILLED UNUSED WATER-TABLE WELL IN SAND AND GRAVEL OF QUATERNARY AGE. DIAM 18 IN (46 CM). DEPTH 68.1 FT (20.8 M). CASED TO 68 FT (20.7 M). PERFORATED 25-42 FT (7.6-12.8 M), 50-65 FT (15.2-19.8 M). GRAVEL PACKED. LSD ABOUT 3,500 FT (1,067 M) NGVD OF 1929. MP NO. 3 HOLE IN PUMPBASE SOUTHWEST SIDE, 1.05 FT (0.320 M) ABOVE LSD (SINCE JULY 28, 1960).

RECORDS AVAILABLE 1947 - 1951, 1954 - 1967, 1968 TO CURRENT YEAR, 1977, 1978.

HIGHEST WATER LEVEL 19.40 FEET BELOW LAND SURFACE DATUM MAY 25, 1976.

LOWEST WATER LEVEL 32.45 FEET BELOW LAND SURFACE DATUM MAY 29, 1959.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
MAR 03, 1976	20.44	S	JUL 23, 1976	19.95	S	DEC 27, 1976	21.30	S	SEP 19, 1977	23.15	S
22	20.11	S	AUG 30	20.28	S	MAR 18, 1977	22.01	S	DEC 12	23.76	S
APR 21	19.86	S	SEP 29	20.64	S	JUL 08	22.75	S	MAR 14, 1978	21.95	S
MAY 25	19.40	S	OCT 28	20.92	S	AUG 05	22.86	S			
JUN 24	19.70	S	NOV 29	21.28	S	SEP 07	23.30	S			

WELL 01S 04E 10DAD1 SITE NUMBER 432055115571801

DRILLED IRRIGATION WATER-TABLE WELL IN IDAHO GROUP. DIAM 10 TO 6 IN (25 TO 15 CM). REPORTED DEPTH 525 FT (160.0 M). CASED TO 496 FT (151.2 M). 10-IN (25-CM) CASING 0-496 FT (0-151.2 M), 6-IN (15-CM) SCREEN 485-525 FT (147.8-160.0 M). OPEN BOTTOM. LSD ABOUT 3,300 FT (1,006 M) NGVD OF 1929. RECORDER INSTALLED MAY 4, 1961. RECORDER REMOVED JULY 20, 1964. MP NO. 1 TOP OF 10-IN (25-CM) CASING SOUTH SIDE, 1.60 FT (0.488 M) ABOVE LSD (SINCE NOV.19, 1960).

RECORDS AVAILABLE 1960, 1961 - 1964, 1965 - 1967, 1968 TO CURRENT YEAR.

HIGHEST WATER LEVEL 341.09 FEET BELOW LAND SURFACE DATUM JAN 21, 1964.

LOWEST WATER LEVEL 344.73 FEET BELOW LAND SURFACE DATUM JUN 29, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
MAR 03, 1976	341.37	S	JUL 23, 1976	341.52	S	DEC 27, 1976	341.37	S	SEP 19, 1977	341.24	S
22	341.39	S	AUG 31	341.57	S	MAR 18, 1977	341.27	S	NOV 21	341.26	S
APR 21	341.49	S	SEP 27	341.35	S	JUN 29	344.73	T	DEC 12	341.32	S
MAY 25	341.45	S	OCT 26	341.53	S	JUL 08	341.57	S	MAR 15, 1978	341.54	
JUN 24	341.61	S	NOV 29	341.64	S	AUG 05	341.40	S	SEP 11	341.30	S

WELL 01S 11E 35CCC1 SITE NUMBER 431707115072801

DUG UNUSED WATER-TABLE WELL IN ALLUVIUM OF QUATERNARY AGE. DIAM 38 IN (96 CM). DEPTH 15.6 FT (4.8 M). CASING DEPTH NOT AVAILABLE. LSD ABOUT 5,092 FT (1,552 M) NGVD OF 1929. MP NO. 1 PAINTED SPOT NORTHWEST CORNER OF CONCRETE WELL OPENING, AT LSD (SINCE SEPT. 17, 1957).

RECORDS AVAILABLE 1957 - 1968, 1969 TO CURRENT YEAR.

HIGHEST WATER LEVEL 1.90 FEET BELOW LAND SURFACE DATUM APR 21, 1971.

LOWEST WATER LEVEL 9.55 FEET BELOW LAND SURFACE DATUM SEP 27, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
MAR 23, 1976	5.56	S	MAY 11, 1977	5.85	S	OCT 11, 1977	6.96	S	MAY 22, 1978	3.61	S
SEP 27	9.55	S	JUN 16	6.08	S	13	6.92	S	JUN 12	4.15	S
DEC 15	6.27	S	JUL 14	6.57	S	NOV 11	6.90	S	JUL 14	5.50	S
JAN 20, 1977	5.78	S	AUG 16	6.94	S	DEC 13	6.59	S	AUG 14	6.59	S
FEB 18	5.71		SEP 09	7.00	S	FEB 14, 1978	5.56	S	SEP 21	6.92	S
MAR 18	5.55	S	19	7.03	S	MAR 16	4.94	S			
APR 14	5.68	S	30	7.03	S	APR 17	2.85	S			

WELL 02S 05E 26ADB1 SITE NUMBER 431329115495301

DRILLED UNUSED WATER-TABLE WELL IN UNKNOWN AQUIFER, DIAM 8 IN (20 CM), DEPTH 428.5 FT (130.6 M), CASING DEPTH NOT AVAILABLE. LSD ABOUT 3,025 FT (922 M) NGVD OF 1929. MP NO. 1 TOP OF 7/8-IN (2.22-CM) HOLE IN CASING CAP SOUTH SIDE, 0.50 FT (0.152 M) ABOVE LSD (SINCE DEC. 16, 1960).

RECORDS AVAILABLE 1960, 1976, 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 307.02 FEET BELOW LAND SURFACE DATUM AUG 22, 1977.

LOWEST WATER LEVEL 314.25 FEET BELOW LAND SURFACE DATUM JAN 16, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
DEC 28, 1960	309.78	S	MAY 17, 1977	309.63	S	NOV 21, 1977	307.06	S	MAY 17, 1978	307.28	S
OCT 08, 1976	307.41	S	JUN 13	307.13	S	DEC 30	307.06	S	JUN 20	307.21	S
JAN 27, 1977	307.30	S	JUL 11	307.16	S	JAN 19, 1978	307.13	S	JUL 17	307.30	S
FEB 23	307.30	S	AUG 22	307.02	S	FEB 22	307.42	S	AUG 21	307.25	S
MAR 18	307.24	S	SEP 19	307.04	S	MAR 16	307.42	S	SEP 11	307.27	S
APR 23	307.81	S	OCT 25	307.08	S	APR 10	307.30	S			

WELL 02S 05E 36BBB1 SITE NUMBER 431242115485501

DRILLED UNUSED WATER-TABLE WELL IN BRUNEAU FORMATION (FORMERLY SNAKE RIVER GROUP), DIAM 6 IN (15 CM), DEPTH 356.9 FT (108.8 M), CASED TO 50 FT (15.2 M). LSD ABOUT 3,190 FT (972 M) NGVD OF 1929. RECORDER INSTALLED JUNE 23, 1967. RECORDER REMOVED NOV. 15, 1971. MP NO. 3 TOP OF CASING NORTHEAST SIDE, 2.00 FT (0.610 M) ABOVE LSD (SINCE JUNE23, 1967).

RECORDS AVAILABLE 1960 - 1966, 1967 - 1971, 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 280.97 FEET BELOW LAND SURFACE DATUM NOV 21, 1977.

LOWEST WATER LEVEL 285.95 FEET BELOW LAND SURFACE DATUM MAY 28, 1965.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
JAN 20, 1976	282.39	S	AUG 31, 1976	281.80	S	JUL 11, 1977	281.47	S	JAN 19, 1978	281.31	S
MAR 03	281.82	S	SEP 29	281.71	S	AUG 05	281.40	S	MAR 16	281.80	S
22	281.75	S	OCT 26	281.84	S	22	281.38	S	MAY 17	281.52	S
APR 16	281.67	S	NOV 29	281.86	S	SEP 08	281.82	S	JUL 17	281.54	S
20	281.79	S	DEC 29	281.46	S	19	281.24	S	SEP 11	281.47	S
MAY 26	281.98	S	JAN 27, 1977	281.60	S	NOV 21	280.97	S			
JUN 24	281.96	S	MAR 18	281.47	S	DEC 12	281.59	S			
JUL 23	281.79	S	MAY 17	281.43	S	JAN 11, 1978	281.42	S			

WELL 02S 06E 11DAC1 SITE NUMBER 431527115420901

DRILLED UNUSED WATER-TABLE WELL IN BRUNEAU FORMATION, DIAM 12 IN (30 CM), REPORTED DEPTH 1,620 FT (493.8 M), CASING DEPTH NOT AVAILABLE. LSD ABOUT 3,400 FT (1,036 M) NGVD OF 1929. AUG. 13, 1970, WELL HAD FILLED IN TO A DEPTH OF 1,550 FT (472.4 M). MP NO. 1 TOP OF HOLE IN 12-IN (30-CM) CASING, 1.70 FT (0.518 M) ABOVE LSD (SINCE MAR. 3, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 105.64 FEET BELOW LAND SURFACE DATUM SEP 19, 1977.

LOWEST WATER LEVEL 116.62 FEET BELOW LAND SURFACE DATUM SEP 12, 1973.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
MAR 03, 1976	106.42	S	JUN 23, 1976	106.66	S	OCT 26, 1976	106.22	S	SEP 19, 1977	105.64	S
29	106.61	S	JUL 23	106.62	S	NOV 29	106.20	S	MAR 14, 1978	105.88	S
APR 21	106.57	S	AUG 31	106.42	S	DEC 29	105.91	S			
MAY 26	106.72	S	SEP 28	106.15	S	MAR 18, 1977	105.91	S			

WELL 02S 11E 11CDD1 SITE NUMBER 431521115065501

DRILLED UNUSED WATER-TABLE WELL IN QUATERNARYSEDIMENTS. DIAM 16 TO 12 IN (41 TO 30 CM). DEPTH 226.2 FT (68.9 M). 16-IN (41-CM) CASING 0-152 FT (0-43.3 M). 12-IN (30-CM) CASING 152-228 FT (46.3-69.5 M). 16-IN (41-CM) SCREEN 142-152 FT (43.3-46.3 M). 12-IN (30-CM) SCREEN 177.5-182.5 FT (54.1-55.6 M). 203-223 FT (61.9-68.0 M). LSD ABOUT 5.110 FT (1.558 M) NGVD OF 1929. MP NO. 1 TOP OF 16-IN (41-CM) CASING NORTH SIDE. 1.50 FT (0.457 M) ABOVE LSD (SINCE MAR. 16. 1977).

RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 14.63 FEET BELOW LAND SURFACE DATUM MAR 16. 1977.

LOWEST WATER LEVEL 19.87 FEET BELOW LAND SURFACE DATUM SEP 21. 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
MAR 16. 1977	14.63	S	SEP 19. 1977	15.46	S	JAN 16. 1978	15.25	S	JUL 14. 1978	17.38	S
MAY 11	14.78	S	21	15.48	S	FEB 14	15.15	S	AUG 14	19.12	S
JUN 16	14.90	S	30	15.49	S	MAR 15	16.66	S	SEP 21	19.87	S
JUL 14	15.09	S	OCT 13	15.59	S	APR 17	16.66	S			
AUG 16	15.32	S	NOV 11	15.75	S	MAY 22	16.21	S			
SEP 09	15.43	S	DEC 13	15.59	S	JUN 12	16.23	S			

WELL 03S 05E 07BDD1 SITE NUMBER 431044115542901

DRILLED UNUSED WATER-TABLE WELL IN BRUNEAU FORMATION. DIAM 18 TO 12 IN (45 TO 30 CM) REPORTED DEPTH 497 FT (151.5 M). 18 IN (45 CM) CASING 0-110 FT (0-33.5 M). 12 IN (30 CM) CASING 0-334 FT (0-101.8 M). PERFORATED 240-332 FT (73.2-101.2 M). LSD ABOUT 3.074 FT (937 M) NGVD OF 1929. MP NO. 1 TOP OF 12-IN (30-CM) CASING EAST SIDE. 1.40 FT (0.427 M) ABOVE LSD (SINCE APR. 9. 1976).

RECORDS AVAILABLE 1976. 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 241.35 FEET BELOW LAND SURFACE DATUM MAY 25. 1976.

LOWEST WATER LEVEL 253.84 FEET BELOW LAND SURFACE DATUM SEP 11, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
APR 09. 1976	241.39	S	NOV 30. 1976	242.99	S	JUL 11. 1977	243.12	S	MAR 15. 1978	251.04	S
20	241.40	S	DEC 27	242.84	S	AUG 22	246.14	S	APR 10	251.07	S
MAY 25	241.35	S	JAN 22. 1977	242.88	S	SEP 19	247.55	S	MAY 17	251.37	S
JUN 23	241.52	S	FEB 23	242.88	S	OCT 26	249.22	S	JUN 20	251.06	S
JUL 22	241.55	S	MAR 17	242.60	S	NOV 21		U	JUL 17	251.68	S
AUG 30	242.09	S	APR 23	242.83	S	DEC 22	250.11	S	AUG 21	252.84	S
SEP 27	242.25		MAY 17	243.00	S	JAN 23. 1978	250.94	S	SEP 11	253.84	S
OCT 27	242.90	S	JUN 13	243.42	S	FEB 21	250.94	S			

WELL 03S 06E 13BBA1 SITE NUMBER 431011115411001

DRILLED UNUSED WATER-TABLE WELL IN BRUNEAU FORMATION. DIAM 12 IN (30 CM). REPORTED DEPTH 150 FT (45.7 M). CASING DEPTH NOT AVAILABLE. LSD ABOUT 3.240 FT (988 M) NGVD OF 1929. MP NO. 1 TOP OF HOLE IN CASING COVER NORTH SIDE. 1.50 FT (0.457 M)ABOVE LSD (SINCE MAY 7. 1976).

RECORDS AVAILABLE 1976. 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 25.19 FEET BELOW LAND SURFACE DATUM JUN 20. 1978.

LOWEST WATER LEVEL 50.23 FEET BELOW LAND SURFACE DATUM SEP 19. 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
MAY 07. 1976	25.66	S	DEC 29. 1976	26.23	S	AUG 22. 1977	47.83	S	APR 10. 1978	29.47	S
26	31.83	S	JAN 22. 1977	26.82	T	SEP 19	50.23	S	MAY 16	31.20	S
JUN 23	26.73	S	FEB 23	27.94	S	OCT 25	48.24	S	JUN 20	25.19	S
JUL 22	34.63	S	MAR 18	26.97	S	NOV 21	43.84	S	JUL 18	31.49	S
AUG 31	33.65	S	APR 23	35.75	S	DEC 30	42.83	S	AUG 21	31.38	S
SEP 28	29.30	S	MAY 17	41.53	S	JAN 19. 1978	42.09	S	SEP 11	31.04	S
OCT 26	26.14	S	JUN 13	41.92	S	FEB 22	37.17				
NOV 29	26.24	S	JUL 12	44.36	S	MAR 14	31.35	S			

WELL 03S 06E 35ABB1 SITE NUMBER 430732115422301

DRILLED IRRIGATION WATER-TABLE WELL IN ALLUVIUM OF HOLOCENE AGE. DIAM 12 IN (30 CM). DEPTH 14.5 FT (4.4 M). CASED TO 14.5 FT (4.4 M). LSD ABOUT 3.125 FT (956 M) NGVD OF 1929. MP NO. 2 TOP OF CASING EAST SIDE. 1.70 FT (0.518 M) ABOVE LSD (SINCEDEC. 10. 1968).

RECORDS AVAILABLE 1967 - 1971. 1976. 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 2.68 FEET BELOW LAND SURFACE DATUM JAN 20. 1971.

LOWEST WATER LEVEL 7.69 FEET BELOW LAND SURFACE DATUM AUG 03. 1967.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
APR 16. 1976	2.74	S	DEC 29. 1976	3.31	S	AUG 22. 1977	5.18	S	APR 10. 1978	5.13	S
MAY 26	3.33	S	JAN 22. 1977	3.84	T	SEP 21	5.13	S	MAY 26	4.92	S
JUN 23	4.33	S	FEB 23	3.88	S	OCT 25	5.67	S	JUN 20	4.87	P S
JUL 22	4.04	S	MAR 18	3.94	S	NOV 21	5.14	S	JUL 18	5.77	S
AUG 31	3.62	S	APR 23	4.45	S	DEC 30	5.12	S	AUG 21	4.69	S
SEP 28	3.15	S	MAY 17	4.62	S	JAN 19. 1978	4.92	S	SEP 11	4.31	S
OCT 26	3.21	S	JUN 13	4.56	S	FEB 22	4.82	S			
NOV 29	3.28	S	JUL 11	3.43	S	MAR 14	4.95	S			

WELL 03S 06E 35BCC1 SITE NUMBER 430716115425101

DRILLED IRRIGATION WATER-TABLE WELL IN BRUNEAU FORMATION (FORMERLY SNAKE RIVER GROUP). DIAM 12 IN (30 CM). DEPTH 857.0 FT (261.2 M). CASED TO 598 FT (182.3 M). PERFORATED 6-264 FT (1.8-80.5 M). LSD ABOUT 3.145 FT (959 M) NGVD OF 1929. MP NO. 1TOP OF 12-IN (30-CM) CASING NORTHEAST SIDE. 1.80 FT (0.549 M) ABOVE LSD (SINCE AUG. 8. 1967).

RECORDS AVAILABLE 1967. 1968 TO CURRENT YEAR.

HIGHEST WATER LEVEL 385.00 FEET BELOW LAND SURFACE DATUM NOV 03. 1967.

LOWEST WATER LEVEL 404.86 FEET BELOW LAND SURFACE DATUM AUG 18. 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
JAN 20. 1976	388.96	T	JUL 22. 1976	399.05	T	FEB 23. 1977	399.18	T	JAN 19. 1978	397.24	T
MAR 02	389.80	T	AUG 31	399.40	T	MAR 18	399.59	T	MAR 14	401.93	T
29	399.20	T	SEP 26	398.14	T	MAY 17	400.09	T	MAY 16	404.32	T
APR 16	400.70	T	OCT 26	397.95	T	JUL 11	402.81	T	JUL 18	394.67	T
20	398.77	T	NOV 29	398.20	T	AUG 18	404.86	T	SEP 11	404.33	T
MAY 26	399.05	T	DEC 29	398.30	T	SEP 21	401.72	T			
JUN 23	399.40	T	JAN 22. 1977	387.00	T	NOV 21	401.76	T			

WELL 03S 07E 03CDC1 SITE NUMBER 431103115364001

DRILLED DOMESTIC WATER-TABLE WELL IN UNKNOWN AQUIFER. DIAM 6 IN (15 CM). REPORTED DEPTH 411 FT (125.3 M). CASING DEPTH NOT AVAILABLE. LSD ABOUT 3.460 FT (1.055 M) NGVD OF 1929. MP NO. 1 TOP OF HOLE IN WOODEN WELL COVER. 3.00 FT (0.914 M) BELOW LSD (SINCE JAN. 24. 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 33.53 FEET BELOW LAND SURFACE DATUM APR 14. 1969.

LOWEST WATER LEVEL 53.17 FEET BELOW LAND SURFACE DATUM APR 21. 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
MAR 29. 1976	36.48	R S	APR 21. 1976	53.17	S	SEP 09. 1976	34.55	S	SEP 29. 1976	36.53	S

WELL 03S 08E 36CDA1 SITE NUMBER 430656115270701

DRILLED IRRIGATION ARTESIAN WELL IN SAND AND GRAVEL OF QUATERNARY AGE, DIAM 12 IN (30 CM). REPORTED DEPTH 600 FT (182.9 M). CASED TO 470 FT (143.3 M). LSD ABOUT 3,395 FT (1,035 M) NGVD OF 1929. MP NO. 1 CENTER OF USGS PRESSURE GUAGE, 4.60 FT (1.402 M) ABOVE LSD (SINCE APR. 24, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 161.68 FEET ABOVE LAND SURFACE DATUM MAR 22, 1973.

LOWEST WATER LEVEL 78.52 FEET ABOVE LAND SURFACE DATUM SEP 18, 1969.

WATER LEVELS IN FEET ABOVE LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 15, 1976	150.13 E G	MAR 19, 1977	152.44 E G	MAR 14, 1978	143.20 E G		
SEP 09	133.96 E G	SEP 20	120.10 E G	SEP 13	110.86 G		

WELL 04S 03E 23CDD1 SITE NUMBER 430321116040101

DRILLED UNUSED WATER-TABLE WELL IN BRUNEAU FORMATION, DIAM 20 IN (51 CM). REPORTED DEPTH 600 FT (182.9 M). CASED TO 65.5 FT (20.0 M). LSD ABOUT 2,917 FT (889 M) NGVD OF 1929. MP NO. 1 TOP OF 1-IN (2.5 CM) COUPLING, 1.65 FT (0.503 M) ABOVE LSD (SINCE APR. 15, 1976).

RECORDS AVAILABLE 1976, 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 242.69 FEET BELOW LAND SURFACE DATUM JAN 22, 1977.

LOWEST WATER LEVEL 245.42 FEET BELOW LAND SURFACE DATUM SEP 12, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
APR 15, 1976	242.71 S	DEC 27, 1976	243.57 S	AUG 24, 1977	244.09 S	APR 10, 1978	244.01 S
MAY 27	242.87 S	JAN 22, 1977	242.69 S	SEP 21	244.37 S	MAY 16	245.23 S
JUN 23	243.32 S	FEB 23	243.52 S	OCT 25	244.35 S	JUN 20	245.15 S
JUL 22	243.23 S	MAR 16	243.33 S	NOV 23	244.72 S	JUL 17	245.32 S
AUG 30	243.23 S	APR 23	243.89 S	DEC 30	244.42 S	AUG 21	245.35 S
SEP 28	243.28 S	MAY 17	243.92 S	JAN 20, 1978	244.78 S	SEP 12	245.42 S
OCT 27	243.57 S	JUN 13	243.91 S	FEB 21	244.98 S		
NOV 30	243.54 S	JUL 12	243.94 S	MAR 15	245.15 S		

WELL 04S 03E 29DDD1 SITE NUMBER 430229116065901

DRILLED UNUSED WATER-TABLE WELL IN UNKNOWN AQUIFER, DIAM 12 IN (30 CM). REPORTED DEPTH 100 FT (30.5 M). CASING DEPTH NOT AVAILABLE. LSD ABOUT 2,485 FT (757 M) NGVD OF 1929. MP NO. 1 TOP OF 12-IN (30-CM) CASING EAST SIDE, AT LSD (SINCE JAN. 30, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 5.71 FEET BELOW LAND SURFACE DATUM SEP 13, 1973.

LOWEST WATER LEVEL 21.93 FEET BELOW LAND SURFACE DATUM APR 15, 1969.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 15, 1976	19.78 S	MAR 16, 1977	21.26 S	MAR 15, 1978	19.44 S		
SEP 07	6.39 S	SEP 22	7.57 S	SEP 27	8.38 S		

WELL 04S 05E 24AAB1 SITE NUMBER 430411115474901

DRILLED UNUSED WATER-TABLE WELL IN BRUNEAU FORMATION, DIAM 8 IN (20 CM), DEPTH 553.3 FT (168.6 M), CASED TO 6 FT (1.8 M). LSD ABOUT 3,092 FT (942 M) NGVD OF 1929. MP NO. 1 TOP OF 8-IN (20-CM) CASING NORTH SIDE, 0.40 FT (0.016 M) ABOVE LSD (SINCE SEPT. 21, 1967).

RECORDS AVAILABLE 1967 - 1971, 1976, 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 410.82 FEET BELOW LAND SURFACE DATUM MAR 16, 1977.

LOWEST WATER LEVEL 414.62 FEET BELOW LAND SURFACE DATUM SEP 12, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
SEP 22, 1976	412.78	S	JUN 13, 1977	411.98	S	DEC 30, 1977	413.19	S	JUN 20, 1978	413.38	S
JAN 22, 1977	411.74	S	JUL 11	412.65	S	JAN 20, 1978	413.29	S	JUL 17	414.16	S
FEB 23	411.38	S	AUG 24	413.19	S	FEB 22	413.00	S	AUG 21	414.49	S
MAR 16	410.82	S	SEP 20	413.58	S	MAR 15	412.89	S	SEP 12	414.62	S
APR 23	411.02	S	OCT 25	413.60	S	APR 10	412.46	S			
MAY 17	411.28	S	NOV 21	413.45	S	MAY 16	412.37	S			

WELL 04S 05E 25BBC1 SITE NUMBER 430310115485701

DRILLED IRRIGATION WATER-TABLE WELL IN BRUNEAU FORMATION (FORMERLY SNAKE RIVER GROUP), REPORTED DEPTH 518 FT (157.9 M), CASING INFORMATION NOT AVAILABLE. LSD ABOUT 3,048 FT (929 M) NGVD OF 1929. MP NO. 1 TOP OF HOLE INSIDE PUMPBASE NORTH SIDE, 1.20 FT (0.366 M) ABOVE LSD (SINCE JAN. 27, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 359.05 FEET BELOW LAND SURFACE DATUM JAN 27, 1967.

LOWEST WATER LEVEL 396.78 FEET BELOW LAND SURFACE DATUM DEC 08, 1975.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
JAN 20, 1976	390.73	S	MAY 26, 1976		P	OCT 26, 1976	382.35	S	MAR 15, 1978	380.82	S
MAR 03	375.98	S	JUN 23	398.92	R S	NOV 29	380.77	S	SEP 12	393.57	S
29	375.44	S	JUL 22		P	DEC 29	380.04	S			
APR 16	387.46	S	AUG 31		P	MAR 18, 1977	378.34	V S			
21		P	SEP 28	384.54	S	SEP 20	416.50	P S			

WELL 04S 07E 09DCC1 SITE NUMBER 430505115373401

DRILLED IRRIGATION WATER-TABLE WELL IN BRUNEAU FORMATION (FORMERLY SNAKE RIVER GROUP), DIAM 12 TO 8 IN (30 TO 20 CM), REPORTED DEPTH 862 FT (262.7 M), 12-IN (30-CM) CASING 0-630 FT (0-192.0 M), 8-IN (20-CM) CASING 665-775 FT (202.7-236.2 M). LSD ABOUT 3,152 FT (961 M) NGVD OF 1929. MP NO. 1 TOP OF HOLE INSIDE PUMPBASE NORTHEAST SIDE, 0.60 FT (0.183 M) ABOVE LSD (SINCE JAN. 30, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 367.40 FEET BELOW LAND SURFACE DATUM MAR 19, 1973.

LOWEST WATER LEVEL 386.30 FEET BELOW LAND SURFACE DATUM JUL 22, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
MAR 15, 1976	369.89	S	JUN 23, 1976	382.97	T	OCT 26, 1976	382.20	T	SEP 20, 1977	373.46	T
29	371.89	S	JUL 22	386.30	T	NOV 29	377.60	T	MAR 15, 1978	372.61	T
APR 21	375.80	T	AUG 31	380.40	T	DEC 29	376.55	T			
MAY 26	380.80	T	SEP 28	383.35	S T	MAR 19, 1977	370.73	S			

WELL 04S 10E 30BBA1 SITE NUMBER 430310115190801

DRILLED UNUSED WATER-TABLE WELL IN GLENNS FERRY FORMATION. DIAM 16 IN (41 CM). REPORTED DEPTH 2,265 FT (690.4 M). 20-IN (51-CM) CASING 0-400 FT (0-121.9 M). 16-IN (41-CM) CASING 0-1,497 FT (0-456.3 M). LSD ABOUT 3,455 FT (1,053 M) NGVD OF 1929. SEPT. 2, 1970, WELL HAD FILLED IN TO A DEPTH OF 1,481 FT (451.4 M). MP NO. 1 TOP OF HOLE IN 20-IN (51-CM) CASING COVER, 1.70 FT (0.518 M) ABOVE LSD (SINCE FEB. 3, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 257.33 FEET BELOW LAND SURFACE DATUM MAR 23, 1968.

LOWEST WATER LEVEL 266.59 FEET BELOW LAND SURFACE DATUM SEP 11, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
MAR 29, 1976	262.62	S	JUN 27, 1977	265.24	S	SEP 07, 1977	265.71	S	MAR 24, 1978	264.93	S
SEP 21	264.42	S	JUL 09	265.14	S	12	265.52	S	SEP 11	266.59	S
MAR 07, 1977	264.77	S	AUG 18	265.50	S	DEC 12	265.75	S			

WELL 05S 04E 05CAA1 SITE NUMBER 430112116001001

DRILLED IRRIGATION WATER-TABLE WELL IN IDAHO GROUP. DIAM 14 IN (36 CM). REPORTED DEPTH 600 FT (182.9 M). CASED TO 440 FT (134.1 M). PERFORATED 225-330 FT (68.6-100.6 M). LSD ABOUT 2,850 FT (869 M) NGVD OF 1929. MP NO. 2 TOP OF 1/2-IN (1.3 CM) HOLE INSIDE PUMPBASE SOUTH SIDE, 0.80 FT (0.244 M) ABOVE LSD (SINCE SEPT. 16, 1970).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 175.60 FEET BELOW LAND SURFACE DATUM JAN 30, 1967.

LOWEST WATER LEVEL 202.27 FEET BELOW LAND SURFACE DATUM OCT 04, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
MAR 29, 1976	184.27	S	SEP 28, 1976		P	NOV 30, 1976	194.73	S	MAR 15, 1978	196.06	S
APR 20	194.85	T S	30		P	DEC 27	193.66	S	SEP 28	202.04	S
MAY 27		P	OCT 04	202.27	S	MAR 16, 1977	193.13	S			
JUN 23		P	27	198.73	S	SEP 21		P			

WELL 05S 06E 14BAA1 SITE NUMBER 425948115422701

DRILLED DOMESTIC WATER-TABLE WELL IN SNAKE RIVER GROUP. DIAM 8 IN (20 CM). REPORTED DEPTH 408 FT (124.4 M). CASED TO 30 FT (9.1 M). LSD ABOUT 3,030 FT (924 M) NGVD OF 1929. NOV. 22, 1974, WELL WAS DEEPENED TO A REPORTED DEPTH OF 447 FT (136.2M). MP NO. 1 TOP OF HOLE IN WELL SEAL, 0.50 FT (0.152 M) ABOVE LSD (SINCE FEB. 3, 1967).

RECORDS AVAILABLE 1967 - 1978.

HIGHEST WATER LEVEL 379.55 FEET BELOW LAND SURFACE DATUM SEP 13, 1972.

LOWEST WATER LEVEL 383.02 FEET BELOW LAND SURFACE DATUM SEP 13, 1971

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
MAR 29, 1976		D	SEP 21, 1976		D	SEP 22, 1976		N			

WELL 05S 06E 15BCD1

SITE NUMBER 425924115435401

DRILLED DOMESTIC WATER-TABLE WELL IN GLENNS FERRY FORMATION. DIAM 26-20-16 IN (66-51-41 CM). REPORTED DEPTH 570 FT (173.7 M). 26-IN (66-CM) CASING 0-195 FT (0-59.4 M). 20-IN (51-CM) CASING 190-296 FT (57.9-90.2 M). 16-IN (41-CM) CASING 330-490 FT (100.6-149.4 M). PERFORATED 330-490 FT (100.6-149.4 M). LSD ABOUT 3.022 FT (921 M) NGVD OF 1929. MP NO. 1 HOLE IN 6-IN (15-CM) CASING NORTH SIDE. 3.70 FT (1.127 M) ABOVE LSD (SINCE MAY 28. 1976).

RECORDS AVAILABLE 1976. 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 376.75 FEET BELOW LAND SURFACE DATUM NOV 29, 1976.

LOWEST WATER LEVEL 383.30 FEET BELOW LAND SURFACE DATUM JAN 22. 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAY 28. 1976	377.45 R T	DEC 29. 1976	379.90 R T	JUL 12. 1977	379.73 T	MAR 15. 1978	378.12 T
JUN 23	377.88 R T	JAN 22. 1977	383.30 T	AUG 24	379.62 T	APR 10	377.72 T
JUL 22	378.00 R T	FEB 23	377.47 T	SEP 20	378.87 T	MAY 16	380.14 T
AUG 31	377.95 T	MAR 17	377.50 T	OCT 25	380.05 T	JUN 20	377.98 T
SEP 28	377.13 T	APR 23	382.84 T	NOV 21	378.13 T	JUL 18	377.87 T
OCT 26	376.80 T	MAY 17	377.76 T	JAN 19. 1978	379.91 T	AUG 21	378.78 P T
NOV 29	376.75 T	JUN 16	378.21 T	FEB 22	378.37 T	SEP 12	379.41 P T

WELL 05S 08E 36CCC1

SITE NUMBER 425621115273501

DRILLED UNUSED WATER-TABLE WELL IN MELON GRAVEL. DIAM 6 IN (15 CM). REPORTED DEPTH 90 FT (27.4 M). CASING DEPTH NOT AVAILABLE. LSD ABOUT 2.536 FT (773 M) NGVD OF 1929. MP NO. 1 TOP OF CANVAS COLLAR WEST SIDE. 3.70 FT (1.128 M) BELOW LSD (SINCEFEB. 15. 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 55.49 FEET BELOW LAND SURFACE DATUM SEP 21. 1974.

LOWEST WATER LEVEL 64.34 FEET BELOW LAND SURFACE DATUM APR 11. 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 15. 1976	62.53 S	MAR 18. 1977	63.70 S	SEP 08. 1977	61.06 S	MAR 14. 1978	63.66 S
28	62.41 S	JUL 09	63.20 S	20	60.85 S	SEP 13	62.45 S
SEP 09	60.41 S	AUG 18	61.74 S	DEC 12	61.94 S		

WELL 05S 10E 24CAB1

SITE NUMBER 425734115163401

DRILLED DOMESTIC ARTESIAN WELL IN GLENNS FERRY FORMATION. DIAM 8 IN (20 CM). REPORTED DEPTH 1.100 FT (335.3 M). CASED TO 146 FT (44.5 M). LSD IS 2.543.25 FT (775.183 M) NGVD OF 1929. SUPPLEMENTARY ADJUSTMENT OF 1961. MP NO. 1 TOP OF CASING COVER SOUTH SIDE. 1.21 FT (0.366 M) ABOVE LSD (SINCE JAN. 8. 1976).

RECORDS AVAILABLE 1976 TO CURRENT YEAR.

HIGHEST WATER LEVEL 10.34 FEET ABOVE LAND SURFACE DATUM JAN 08. 1976.

LOWEST WATER LEVEL 2.11 FEET ABOVE LAND SURFACE DATUM MAY 16. 1978.

WATER LEVELS IN FEET ABOVE LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 08. 1976	10.34 E M	JUN 26. 1976	5.56 E M	JAN 17. 1977	2.57 E M	APR 19. 1978	4.03 M
FEB 17	8.94 E M	JUL 12	4.39 E M	MAY 17	2.30 E M	MAY 16	2.11 M
MAR 27	7.23 E M	SEP 21	4.73 E M	JUL 12	2.37 E M	JUL 05	1.33 E S
MAY 07	6.33 E M	NOV 15	4.04 E M	JAN 23. 1978	5.52 E M	SEP 11	4.36 E M

WELL 06S 10E 30DCB1 SITE NUMBER 425208115184201

DRILLED STOCK WATER-TABLE WELL IN BRUNEAU FORMATION, DIAM 6 IN (15 CM). REPORTED DEPTH 437 FT (133.2 M). CASING DEPTH NOT AVAILABLE. LSD ABOUT 2,990 FT (911 M) NGVD OF 1929. MP NO. 1 TOP OF HOLE IN CASING COVER, 1.10 FT (0.335 M) ABOVE LSD (SINCE FEB. 10, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 250.76 FEET BELOW LAND SURFACE DATUM MAR 20, 1973.

LOWEST WATER LEVEL 253.54 FEET BELOW LAND SURFACE DATUM SEP 15, 1970.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 27, 1976	250.88 T	JUN 16, 1977	255.34 P T	SEP 12, 1977	252.05 T		

WELL 06S 11E 06BBA1 SITE NUMBER 425617115120001

DRILLED DOMESTIC WATER-TABLE WELL IN GLENNS FERRY FORMATION, DIAM 6 IN (15 CM). REPORTED DEPTH 445 FT (135.6 M). CASING DEPTH NOT AVAILABLE. LSDABOUT 2,680 FT (817 M) NGVD OF 1929. MP NO. 1 TOP OF HOLE IN WELL SEAL EAST SIDE, 0.60 FT (0.183 M) ABOVE LSD (SINCE FEB. 15, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 107.21 FEET BELOW LAND SURFACE DATUM FEB 15, 1967.

LOWEST WATER LEVEL 114.74 FEET BELOW LAND SURFACE DATUM SEP 18, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 27, 1976	110.71 S	MAR 07, 1977	111.80 R S	MAR 24, 1978	120.24 R S		
SEP 21	111.45 S	SEP 12	112.66 S	SEP 18	114.74 S		

WELL 07N 03W 16DAD1 SITE NUMBER 435633116413001

FORMERLY SITE ID NO. 435636116413001. DUG ANDDRILLED STOCK WATER-TABLE WELL IN SAND AND GRAVEL OF QUATERNARY AGE. DIAM 28 IN (71 CM). DEPTH 46.1 FT (14.0 M). 28-IN (71-CM) CASING 0-29 FT (0-8.8 M). CASING INFORMATION NOT AVAILABLE FOR DRILLED PART OF WELL. LSD 2,317.50 FT (706.374 M) NGVD OF 1929, SUPPLEMENTARY ADJUSTMENT OF 1961. MEASUREMENTS PRIOR TO NOV. 10, 1971, MADE BY US BUREAU OF RECLAMATION. RECORDER INSTALLED FEB. 21, 1968. RECORDER REMOVED MAY 28, 1971. MP NO. 1 TOP OF CONCRETE PLATFORM EAST SIDE, 1.12 FT (0.341 M) ABOVE LSD (SINCE FEB. 21, 1968).

RECORDS AVAILABLE 1968 - 1971, 1972 - 1976.

HIGHEST WATER LEVEL 12.92 FEET BELOW LAND SURFACE DATUM SEP 26, 1970.

LOWEST WATER LEVEL 28.11 FEET BELOW LAND SURFACE DATUM APR 30, 1971.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 06, 1976	W						

WELL 07N 03W 34ABD1 SITE NUMBER 435424116403701

FORMERLY SITE ID NO. 435426116403701. DRILLEDOBSERVATION WATER-TABLE WELL IN SAND AND GRAVEL OF QUATERNARY AGE. DEPTH 22.8 FT (6.9 M). 1 1/4-IN (3.2-CM) PIEZOMETER TUBE 0-23.1 FT (0-7.0 M), PERFORATED 18.0-21.0 FT (5.5-6.4 M). GRAVEL PACKED. CONCRETE SEAL. LSD 2,267.80 (691.225 M) NGVD OF 1929, SUPPLEMENTARY ADJUSTMENT OF 1961. MEASUREMENTS PRIOR TO DEC. 3, 1971, MADE BY US BUREAU OF RECLAMATION. MP NO. 1 TOP OF 1 1/4-IN (3.2-CM) PIPE NORTHWEST SIDE, 1.06 FT (0.323 M) ABOVE LSD (SINCE JULY 24, 1968).

RECORDS AVAILABLE 1968 - 1971, 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 0.91 FEET BELOW LAND SURFACE DATUM SEP 25, 1970.

LOWEST WATER LEVEL 3.46 FEET BELOW LAND SURFACE DATUM APR 10, 1974.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
JAN 24, 1976	2.65	S	SEP 10, 1976	1.80	S	AUG 01, 1977	1.56	S	JAN 17, 1978	1.51	S
MAR 06	2.94	S	MAR 14, 1977	3.46	S	SEP 09	1.08	S	MAR 28	3.08	S
APR 17	3.35	S	MAY 18	1.44	S	29	1.49	S	MAY 24	1.86	S
MAY 20	1.50	S	JUN 30	1.49	S	NOV 25	1.84	S	JUL 21	2.27	S
JUN 23	1.76	S	JUL 15	1.80	S	DEC 07	2.54	S	SEP 20	2.00	S

WELL 07N 03W 34ABD2 SITE NUMBER 435424116403702

FORMERLY SITE ID NO. 435426116403702. DRILLEDOBSERVATION ARTESIAN WELL IN IDAHO GROUP. DEPTH 54.4 FT (16.6 M). 3/4-IN (1.9-CM) PIEZOMETER TUBE 0-56.2 FT (0-17.1 M), PERFORATED 51.2-52.7 FT (15.6-16.1 M). GRAVEL PACKED. CONCRETE SEAL. LSD 2,267.80 FT (691.225 M) NGVD OF 1929, SUPPLEMENTARY ADJUSTMENT OF 1961. MEASUREMENTS PRIOR TO DEC. 3, 1971, MADE BY US BUREAU OF RECLAMATION. MP NO. 1 TOP OF 3/4-IN (1.9-CM) PIPE NORTHWEST SIDE, 1.06 FT (0.323 M) ABOVE LSD (SINCE JULY 24, 1968).

RECORDS AVAILABLE 1968 - 1971, 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 1.05 FEET ABOVE LAND SURFACE DATUM AUG 27, 1970.

LOWEST WATER LEVEL -1.44 FEET BELOW LAND SURFACE DATUM MAR 14, 1977.

WATER LEVELS IN FEET ABOVE OR BELOW(-) LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
JAN 24, 1976	-0.60	S	SEP 10, 1976	0.77	S	AUG 02, 1977	0.96	S	JAN 17, 1978	0.29	S
MAR 06	-0.82	S	MAR 14, 1977	-1.44	S	SEP 09	1.00	S	MAR 28	-1.03	S
APR 17	-1.16	S	MAY 18	0.57	S	29	0.50	S	MAY 24	0.09	S
MAY 20	0.51	S	JUN 30	0.66	S	NOV 25	-0.38	S	JUL 21	0.48	S
JUN 23	0.54	S	JUL 15	0.74	S	DEC 07	-0.53	S	SEP 20	0.28	S

WELL 07N 03W 34ABD3 SITE NUMBER 435424116403703

FORMERLY SITE ID NO. 435426116403703. DRILLEDOBSERVATION ARTESIAN WELL IN IDAHO GROUP. DIAM 4 TO 3/4 IN (10 TO 1.9 CM). DEPTH 85.5 FT (26.1 M). 4-IN (10-CM) CASING 5.52 FT (1.68 M) ABOVE LSD TO 1.86 FT (0.57 M) BELOW LSD. 3/4-IN (1.9-CM) PIEZOMETER TUBE 1.86-85.0 FT (0.57-25.9 M). PERFORATED 80.0-81.5 FT (24.4-24.8 M). LSD 2,267.80 FT (691.225 M) NGVD OF 1929. SUPPLEMENTARY ADJUSTMENT OF 1961. MEASUREMENTS PRIOR TO NOV. 10. 1971. MADE BY US BUREAU OF RECLAMATION. RECORDER INSTALLED APR. 17. 1969. RECORDER REMOVED MAY 28. 1971. MP NO. 2 TOP OF 4-IN (10-CM) CASING NORTHWEST SIDE. 5.52 FT (1.682 M) ABOVE LSD (SINCE JULY 24. 1964).

RECORDS AVAILABLE 1968. 1969 - 1971. 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 4.04 FEET ABOVE LAND SURFACE DATUM AUG 30, 1970.

LOWEST WATER LEVEL -3.19 FEET BELOW LAND SURFACE DATUM MAR 28. 1978.

WATER LEVELS IN FEET ABOVE OR BELOW(-) LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
MAR 06. 1976	2.47	S	MAR 14. 1977	2.00	S	SEP 09. 1977	3.60	S	MAR 28. 1978	-3.19	S
APR 17	2.37	S	MAY 18	3.57	S	29	3.44	S	MAY 24	3.14	S
MAY 20	4.41	S	JUN 30	3.42	S	NOV 25	2.68	S	JUL 21	3.64	S
JUN 23	3.55	S	JUL 15	3.58	S	DEC 07	2.75	S	SEP 20	3.19	S
SEP 10	3.76	S	AUG 02	3.89	S	JAN 17. 1978	3.17	S			

WELL 07N 02W 29BBA2 SITE NUMBER 435523116362601

FORMERLY SITE ID NO. 435524116362801. DRILLEDOBSERVATION WATER-TABLE WELL IN IDAHO GROUP. DIAM 6 IN (15 CM). DEPTH 291.3 FT (88.8 M). CASED TO 300 FT (91.4 M). OPEN BOTTOM. LSD 2,396.60 FT (730.484 M) NGVD OF 1929. SUPPLEMENTARY ADJUSTMENT OF 1961. MEASUREMENTS PRIOR TO NOV. 10. 1971. MADE BY US BUREAU OF RECLAMATION. RECORDER INSTALLED JUNE 26. 1969. RECORDER REMOVED MAY 28. 1971. MP NO. 1 TOP OF 6-IN (15-CM) CASING SOUTH SIDE. 0.90 FT (0.274 M) ABOVE LSD (SINCE JUNE 26. 1969).

RECORDS AVAILABLE 1969 - 1971. 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 19.73 FEET BELOW LAND SURFACE DATUM OCT 30. 1974.

LOWEST WATER LEVEL 23.85 FEET BELOW LAND SURFACE DATUM JUN 26. 1969.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
JAN 24. 1976	21.75	S	JUN 23. 1976	23.06	S	JUL 15. 1977	22.40	S	MAR 28. 1978	22.73	S
MAR 06	22.48	S	SEP 10	21.38	S	OCT 04	20.39	S	MAY 24	23.26	S
APR 17	23.00	S	MAR 12. 1977	22.73	S	NOV 25	20.72	S	JUL 21	22.99	S
MAY 20	23.21	S	MAY 18	23.37	S	JAN 17. 1978	21.41	S	SEP 20	21.65	S

WELL 07N 02W 35ABB1 SITE NUMBER 435427116321801

FORMERLY SITE ID NO. 435430116322301. DUG DOMESTIC WATER-TABLE WELL IN SAND AND GRAVEL OF QUATERNARY AGE. DIAM 36 IN (91 CM). DEPTH 99.5 FT (30.4 M). CONCRETE CASING. CASING DEPTH NOT AVAILABLE. WATER LEVEL INFLUENCED BY LOCAL IRRIGATION. LSD ABOUT 2,451 FT (747 M) NGVD OF 1929. MEASUREMENTS PRIOR TO AUG. 1948 MADE BY R. J. HOWARD. MP NO. 4 TOP OF INNER EDGE OF WOODEN CURB NORTH SIDE. 0.50 FT (0.152 M) ABOVE LSD (SINCE MAR. 19. 1953).

RECORDS AVAILABLE 1941 - 1942. 1948 - 1966. 1967 - 1970. 1971 TO CURRENT YEAR.

HIGHEST WATER LEVEL 67.50 FEET BELOW LAND SURFACE DATUM OCT 12, OCT 18, DEC 05, 1961

LOWEST WATER LEVEL 83.80 FEET BELOW LAND SURFACE DATUM MAY 20. 1954.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
JAN 24. 1976	75.32 R	S	MAY 20. 1976	74.56	S	MAR 12. 1977	78.07	S	OCT 04. 1977	71.99	S
MAR 06	76.96 R	S	JUN 23	79.11	S	MAY 18	79.67	S	NOV 25	72.42	S
APR 06	78.69	S	SEP 10	74.06	S	JUL 15	78.30	T			

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WELL 07N 01E 26DDB1 SITE NUMBER 435443116174801

DRILLED DOMESTIC WATER-TABLE WELL IN IDAHO GROUP. DIAM 10 IN (25 CM). REPORTED DEPTH 400 FT (121.9 M). CASED TO 400 FT (121.9 M). PERFORATED 160-400 FT (48.8-121.9 M). GRAVEL PACKED 0-400 FT (0-121.9 M). LSD ABOUT 2,695 FT (821 M) NGVD OF 1929. MP NO. 2 TOP OF HOLE IN WELL SEAL NORTH SIDE 0.50 FT (0.152 M) ABOVE LSD (SINCE SEPT. 20, 1972).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 33.00 FEET BELOW LAND SURFACE DATUM MAR 14, 1972.

LOWEST WATER LEVEL 73.28 FEET BELOW LAND SURFACE DATUM SEP 25, 1975.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 06, 1976	45.66 S	MAR 14, 1977	46.93 S	MAR 28, 1978	37.32 N S		
JUN 25	127.69 P S	OCT 04	41.44 S				

WELL 06N 03W 12CDC1 SITE NUMBER 435200116384701

FORMERLY SITE ID NO. 435201116384701. DRILLEDOBSERVATION ARTESIAN WELL IN IDAHO GROUP. DIAM 4 IN TO 3/4 IN (10 TO 1.9 CM). DEPTH 53.1 FT (16.2M). 4-IN (10-CM) CASING 4.01 FT (1.22 M) ABOVE LSD TO 1.53 FT (0.46 M) BELOW LSD. 3/4-IN (1.9-CM) PIEZOMETER TUBE 1.53-52.8 FT (0.46-16.1 M). PERFORATED 48.2-49.7 FT (14.7-15.2 M). CEMENTPLUG 10-22 FT (3.0-6.7 M). LSD 2,314.80 FT (705.551 M) NGVD OF 1929. SUPPLEMENTARY ADJUSTMENT OF 1961. MEASUREMENTS PRIOR TO NOV. 9, 1971, MADE BY US BUREAU OF RECLAMATION. RECORDER INSTALLED JUNE 17, 1970. RECORDER REMOVED MAY 28, 1971. MP NO. 2 TOP OF 4-IN (10-CM) CASING SOUTH SIDE. 4.01 FT (1.222 M) ABOVE LSD (SINCE JUNE 17, 1970).

RECORDS AVAILABLE 1968 - 1969, 1970 - 1971, 1972 - 1978.

HIGHEST WATER LEVEL 2.94 FEET ABOVE LAND SURFACE DATUM AUG 23, 1974.

LOWEST WATER LEVEL -1.00 FEET BELOW LAND SURFACE DATUM MAR 24, 1969.

WATER LEVELS IN FEET ABOVE OR BELOW(-) LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 24, 1976	0.25 S	SEP 10, 1976	2.66 S	SEP 29, 1977	2.16 S	MAY 24, 1978	0.03 S
APR 17	-0.29 S	MAR 14, 1977	-0.18 S	NOV 25	1.25 S	JUL 21	1.30 N S
MAY 20	1.08 S	MAY 18	0.57 S	JAN 17, 1978	0.56 S		
JUN 23	1.93 S	JUL 15	0.68 S	MAR 28	-0.02 S		

WELL 06N 02W 14BCA1 SITE NUMBER 435139116324901

FORMERLY SITE ID NO. 435140116325101. DRILLEDOBSERVATION WATER-TABLE WELL IN SAND AND GRAVEL OF QUATERNARY AGE. DEPTH 21.4 FT (6.5 M). 1 1/4-IN (3.2-CM) PIEZOMETER TUBE 0-25 FT (0-7.6 M). PERFORATED 18.0-21.0 FT (5.5-6.4 M). LSD 2,341.80 FT (713.781 M) NGVD OF 1929. SUPPLEMENTARY ADJUSTMENT OF 1961. MEASUREMENTS PRIOR TO NOV. 10, 1971, MADE BY US BUREAU OF RECLAMATION. MP NO. 2 TOP OF 1 1/4-IN (3.2-CM) PIPE WEST SIDE. 4.34FT (1.323 M) ABOVE LSD (SINCE APR. 25, 1969).

RECORDS AVAILABLE 1968 - 1971, 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 0.25 FEET BELOW LAND SURFACE DATUM DEC 26, 1968.

LOWEST WATER LEVEL 4.58 FEET BELOW LAND SURFACE DATUM MAR 14, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 24, 1976	1.29 S	JUN 23, 1976	4.45 S	JUL 15, 1977	3.78 S	MAR 28, 1978	4.21 S
MAR 06	1.19 S	SEP 10	4.18 S	SEP 29	3.82 S	MAY 24	3.76 S
APR 17	1.63 S	MAR 14, 1977	4.58 S	NOV 25	3.73 S	JUL 21	3.92 S
MAY 20	4.18 S	MAY 18	3.92 S	JAN 17, 1978	2.65 S	SEP 20	3.41 S

WELL 06N 02W 14BCA2 SITE NUMBER 435139116324902

FORMERLY SITE ID NO. 435140116325102. DRILLED OBSERVATION ARTESIAN WELL IN IDAHO GROUP, DIAM 4 TO 3/4 IN (10 TO 1.9 CM). DEPTH 84.2 FT (25.7 M). 4-IN (10-CM) CASING 4.23 FT (1.29 M) ABOVE LSD TO 2.05 FT (0.62 M) BELOW LSD, 3/4-IN (1.9 CM) PIEZOMETER TUBE 2.05-84.2 FT (0.62-25.7 M), PERFORATED 79.5-81.0 FT (24.2-24.7 M). LSD 2,341.80 FT (713.781 M) NGVD OF 1929, SUPPLEMENTARY ADJUSTMENT OF 1961. MEASUREMENTS PRIOR TO NOV. 10, 1971, MADE BY US BUREAU OF RECLAMATION. RECORDER INSTALLED APR. 16, 1969. RECORDER REMOVED MAY 28, 1971. MP NO. 2 TOP OF 4-IN (10-CM) CASING WEST SIDE, 4.23 FT (1.289 M) ABOVE LSD (SINCE APR. 16, 1969).

RECORDS AVAILABLE 1968, 1969 - 1971, 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 3.44 FEET ABOVE LAND SURFACE DATUM AUG 23, 1968.

LOWEST WATER LEVEL -0.30 FEET BELOW LAND SURFACE DATUM MAR 14, 1977.

WATER LEVELS IN FEET ABOVE OR BELOW(-) LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
JAN 24, 1976	2.66	S	JUN 23, 1976	0.55	S	JUL 15, 1977	0.86	S	MAR 28, 1978	0.03	
MAR 06	1.53	S	SEP 10	0.76	S	SEP 29	0.74	S	MAY 24	0.55	S
APR 17	1.30	S	MAR 14, 1977	-0.30	S	NOV 25	0.26	S	JUL 21	1.12	S
MAY 20	0.65	S	MAY 18	0.42	S	JAN 17, 1978	0.83	S	SEP 20	1.20	S

WELL 06N 01W 18DAA2 SITE NUMBER 435125116293201

FORMERLY SITE ID NO. 435125116293501. DRILLED DOMESTIC WATER-TABLE WELL IN SAND AND GRAVEL OF QUATERNARY AGE. DIAM 4 IN (10 CM). DEPTH 30.9FT (9.4 M). CASED TO 22 FT (6.7 M). LSD 2,371.90 FT (722.955 M) NGVD OF 1929, SUPPLEMENTARY ADJUSTMENT OF 1961. MEASUREMENTS PRIOR TO NOV. 9, 1971, MADE BY US BUREAU OF RECLAMATION. RECORDER INSTALLED OCT. 17, 1968. RECORDER REMOVED MAY 28, 1971. MP NO. 1 TOP OF 4-IN (10-CM) CASING NORTH SIDE, 0.26FT (0.079 M) ABOVE LSD (SINCE NOV. 9, 1967).

RECORDS AVAILABLE 1967, 1968 - 1970, 1971 TO CURRENT YEAR.

HIGHEST WATER LEVEL 3.94 FEET BELOW LAND SURFACE DATUM AUG 24, 1970.

LOWEST WATER LEVEL 8.57 FEET BELOW LAND SURFACE DATUM MAR 14, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
JAN 24, 1976	7.77	S	SEP 10, 1976	6.05	S	AUG 02, 1977	5.61	S	MAR 28, 1978	7.84	S
MAR 06	8.02	S	MAR 14, 1977	8.57	S	SEP 29	5.98	S	MAY 24	7.87	S
APR 17	8.35	S	MAY 18	7.25	S	NOV 25	6.13	S	JUL 21	5.57	S
MAY 20	6.61	S	JUN 30	5.17	S	DEC 07	7.50	S	SEP 20	6.76	S
JUN 23	6.30	S	JUL 15	4.90	S	JAN 17, 1978	7.01	S			

WELL 53N 04W 24BBA1 SITE NUMBER 475558116464701

DUG STOCK AND DOMESTIC WATER-TABLE WELL IN FLUVIOGLACIAL GRAVEL OF QUATERNARY AGE. DIAM 39 IN (99 CM). DEPTH 480.0 FT (146.3 M). CRIBBED WITH WOOD TO 480 FT (146.3 M). LSD 2,486.53 FT (757.894 M) NGVD OF 1929. APR. 26, 1965. WELL WAS DEEPENED AND RECASED TO A DEPTH OF 485.2 FT (147.9 M). 25-IN (64-CM) CASING 9-25 FT (2.7-7.6 M). 25-IN (64-CM) WOOD CRIBBING 25-303 FT (7.6-92.4 M). 20-IN (51-CM) CASING 258-488 FT (78.6-148.7 M). SLOTTED PERFORATIONS 449-488 FT (136.8-148.7 M). MEASUREMENTS PRIOR TO 1938 BY WASHINGTON WATER POWER COMPANY. MEASUREMENTS FROM JAN. 1938 TO JULY 1942 BY US GEOL SURVEY AND WASHINGTON WATER POWER COMPANY. MP NO. 15 TOP OF 1/2-IN (1.3-CM) PIPE TEE SOUTH SIDE OF PUMP. 4.50 FT (1.372 M) ABOVE LSD (SINCE JULY 15, 1968).

RECORDS AVAILABLE 1929 - 1938, 1939 - 1941, 1942 - 1964, 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 447.38 FEET BELOW LAND SURFACE DATUM AUG 13, 1956.

LOWEST WATER LEVEL 478.14 FEET BELOW LAND SURFACE DATUM JAN 15, 1932.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 23, 1976	458.01 S	OCT 20, 1976	457.40 S	JUL 22, 1977	465.79 P S	MAR 22, 1978	469.68 P S
FEB 26	458.40 P S	NOV 23	458.57 S	AUG 24	466.45 P S	APR 20	469.56 S
MAR 23	458.36 S	DEC 21	459.60 S	SEP 22	466.49 P S	MAY 19	468.73 R S
APR 20	458.36 P S	JAN 21, 1977	460.72 S	OCT 25	466.72 P S	JUN 20	468.52 P S
MAY 25	457.67 S	FEB 24	461.82 S	NOV 21	466.62 S	JUL 18	467.77 S
JUN 22	457.07 P S	MAR 22	462.62 S	25	467.52 S	AUG 28	467.45 P S
JUL 23	456.97 P S	APR 21	463.48 S	DEC 22	468.22 P S	SEP 25	466.72 P S
AUG 23	457.07 P S	MAY 23	464.53 P S	JAN 20, 1978	469.20		
SEP 22	456.96 P S	JUN 23	465.31 P S	FEB 21	469.35 P S		

WELL 53N 04W 24CAB1 SITE NUMBER 475439116503401

DRILLED OBSERVATION WATER-TABLE WELL IN POORLY SORTED TILL OF QUATERNARY AGE. DIAM 6 IN (15 CM). DEPTH 448.6 FT (136.7 M). CASED TO 440 FT (134.1 M). SCREEN 438-448 FT (133.5-136.6 M). LSD 2,426.27 FT (739.527 M) NGVD OF 1929. MP NO. 1 TOP OF CASING NORTHEAST SIDE. 2.30 FT (0.701 M) ABOVE LSD (SINCE JULY 16, 1971).

RECORDS AVAILABLE 1971 TO CURRENT YEAR.

HIGHEST WATER LEVEL 399.57 FEET BELOW LAND SURFACE DATUM AUG 22, 1974.

LOWEST WATER LEVEL 419.42 FEET BELOW LAND SURFACE DATUM MAR 17, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 23, 1976	407.16 S	DEC 21, 1976	408.89 S	AUG 24, 1977	416.20 S	MAR 22, 1978	419.39 S
FEB 26	407.55 S	JAN 21, 1977	410.00 S	SEP 12	416.59 S	APR 18	419.20 S
MAR 23	407.55 S	FEB 24	411.17 S	OCT 25	417.32 S	MAY 19	418.33 S
APR 20	407.35 S	MAR 22	412.01 S	NOV 02	417.40 S	24	418.26 S
MAY 25	406.68 S	APR 01	412.32 S	25	417.97 S	JUN 20	417.82 S
JUN 22	406.08 S	21	412.90 S	DEC 06	419.09 S	28	417.98 S
JUL 23	405.95 S	MAY 23	414.04 S	22	418.35 S	JUL 18	417.52 S
AUG 23	406.27 S	JUN 06	414.48 S	JAN 11, 1978	418.60 S	27	417.50 S
SEP 22	406.54 S	23	414.88 S	FEB 07	418.99 S	AUG 28	417.31 S
OCT 20	407.06 S	JUL 22	415.60 S	21	419.11 S	SEP 25	417.22 S
NOV 23	407.08 S	AUG 19	416.05 S	MAR 17	419.42 S	27	417.27 S

WELL 53N 02W 09AAC1 SITE NUMBER 475736116341701

DRILLED UNUSED WATER-TABLE WELL IN FLUVIOGLACIAL SAND AND GRAVEL OF QUATERNARY AGE. DIAM 16 IN (41 CM). REPORTED DEPTH 351 FT (107.0 M). CASED TO 351 FT (107.0 M). PERFORATED 280-345 FT (85.3-105.2 M). LSD 2,291.46 FT (698.437 M) NGVD OF 1929. PACIFIC NORTHWEST SUPPLEMENTARY ADJUSTMENT OF 1947. NOV. 1966 WELL BECAME BRIDGED. WELL DRILLER DROVE OBSTRUCTION DOWN TO 335 FT (102.1 M). AUG. 1968 DEPTH SOUNDED AT 331 FT (100.9 M). MEASUREMENTS FROM DEC. 13, 1943, THROUGH DEC. 29, 1948, ARE AIRLINE MEASUREMENTS MADE TO THE NEAREST FOOT BY A. E. HOLTEN, FARRAGUT INSTITUTE. RECORDER INSTALLED OCT. 25, 1950. RECORDER REMOVED FEB. 4, 1962. MP NO. 8 TOP OF 2-IN (5.1-CM) PIPE, 0.61 FT (0.186 M) ABOVE LSD (SINCE DEC. 12, 1969).

RECORDS AVAILABLE 1943 - 1948, 1949, 1950 - 1962, 1963 TO CURRENT YEAR.

HIGHEST WATER LEVEL 228.00 FEET BELOW LAND SURFACE DATUM JUN 08, 1948.

LOWEST WATER LEVEL 252.00 FEET BELOW LAND SURFACE DATUM JAN 02, 1944.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
JAN 23, 1976	238.76	V S	JAN 21, 1977	241.08	S	NOV 02, 1977	237.78	S	MAY 19, 1978	239.27	S
FEB 26	238.33	V S	FEB 24	241.27	S	21	240.61	S	24	238.71	S
MAR 23	238.29	V S	MAR 22	241.38	S	DEC 07	241.49	S	JUN 20	235.97	S
APR 20	238.18	V S	APR 21	241.15	S	22	241.91	S	27	234.60	S
MAY 25	233.76	V S	MAY 23	238.55	S	JAN 11, 1978	242.32	S	JUL 18	233.58	S
JUN 22	232.62	V S	JUN 09	235.81	S	20	242.12	S	26	233.43	S
JUL 23	231.88	V S	23	235.08	S	FEB 07	242.78	S	AUG 22	232.99	S
AUG 23	231.71	V S	JUL 22	233.59	S	21	242.88	S	28	232.84	S
SEP 22	231.48	V S	AUG 17	232.84	S	MAR 13	243.02	S	SEP 25	233.15	S
OCT 20	235.76	V S	24	232.83	S	22	242.90	S			
NOV 23	240.42	V S	SEP 13	232.74	S	APR 17	241.05	S			
DEC 21	241.12	V S	OCT 25	236.59	S	20	240.73	S			

WELL 51N 05W 33BBA1 SITE NUMBER 474344116583001

DUG DOMESTIC WATER-TABLE WELL IN FLUVIOGLACIAL GRAVEL OF QUATERNARY AGE. DIAM 5 FT (1.5 M). DEPTH 174.4 FT (53.1 M). CONCRETE CASING TO 174 FT (53.0 M). OPEN BOTTOM. LSD 2,137.60 FT (651.540 M) NGVD OF 1929. PACIFIC NORTHWEST SUPPLEMENTARY ADJUSTMENT OF 1947. MEASUREMENTS PRIOR TO JAN. 1938 BY WASHINGTON WATER POWER COMPANY. MEASUREMENTS FROM 1938 THROUGH JUNE 1950 BY US GEOL. SURVEY AND WASHINGTON WATER POWER COMPANY. MP NO. 4 TOP OF 1 1/2-IN (3.8-CM) PIPE EAST SIDE OF PUMP, 2.13 FT (0.649 M) ABOVE LSD (SINCE AUG. 27, 1959).

RECORDS AVAILABLE 1928 - 1937, 1938 - 1961, 1962 TO CURRENT YEAR.

HIGHEST WATER LEVEL 134.14 FEET BELOW LAND SURFACE DATUM JUN 29, 1950.

LOWEST WATER LEVEL 165.09 FEET BELOW LAND SURFACE DATUM FEB 11, 1932.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
JAN 23, 1976	148.52	S	DEC 21, 1976	151.87	S	AUG 24, 1977	157.76	S	APR 18, 1978	155.59	S
FEB 26	148.65	R S	JAN 21, 1977	152.66	S	SEP 12	157.90	S	MAY 19	155.42	S
MAR 23	148.89	R S	FEB 24	153.58	S	OCT 25	158.03	S	25	155.37	S
APR 20	148.05	R S	MAR 11	153.94	S	NOV 01	158.10	S	JUN 20	155.84	S
MAY 25	146.80	R S	22	154.23	S	25	159.20	S	29	155.71	S
JUN 22	147.61	R S	APR 21	155.05	S	DEC 05	158.19	S	JUL 18	156.38	S
JUL 23	148.97	S	MAY 23	155.56	S	22	158.96	S	24	156.15	S
AUG 23	149.45	S	JUN 07	155.44	S	JAN 11, 1978	157.01	S	AUG 24	157.01	S
SEP 22	150.10	S	23	155.85	S	FEB 01	157.26	S	28	156.98	S
OCT 20	150.56	S	JUL 22	156.97	S	21	157.28	S	SEP 25	156.95	S
NOV 23	151.14	S	AUG 17	157.58	S	MAR 21	157.11	S	26	156.95	S

WELL 51N 04W 18DCC1 SITE NUMBER 474535116525101

FORMERLY SITE ID NO. 474536116525101. DRILLEDUNUSED WATER-TABLE WELL IN FLUVIOGLACIAL SAND AND GRAVEL OF QUATERNARY AGE. DIAM 6 IN (15 CM). DEPTH 275.0 FT (83.8 M). CASED TO 275 FT (83.8 M). LSD 2,260.71 FT (689.064 M) NGVD OF 1929. PACIFICNORTHWEST SUPPLEMENTARY ADJUSTMENT OF 1947. MAR. 1, 1974, WELL HAD FILLED IN TO A DEPTH OF 265.8 FT (81.0 M). THE WELL DEPTH MEASURED MAR. 1974. LOWEST WATER LEVEL FOR PERIOD OF RECORD, AND 1974 WATER-LEVEL MEASUREMENTS WERE PUBLISHED INCORRECTLY. THE CORRECTED MEASUREMENTS ARE PUBLISHED WITH THE 1975 MEASUREMENTS. RECORDER INSTALLED APR. 24, 1951. RECORDER REMOVED SEPT. 22, 1952. MP NO. 5 TOP OF 8-IN (20-CM) CASING SOUTH SIDE, 3.26 FT (0.994 M) ABOVE LSD (SINCE NOV. 23, 1975).

RECORDS AVAILABLE 1948 - 1950, 1951 - 1952, 1953 - 1969, 1970 - 1978.

HIGHEST WATER LEVEL 244.52 FEET BELOW LAND SURFACE DATUM OCT 25, 1957.

LOWEST WATER LEVEL WELL DRY AUG 24, 1977; SEP 13, 1977; OCT 25, 1977; NOV 02, 1977; NOV 25, 1977; DEC 22, 1977; FEB 21, 1978; MAR 22, 1978; APR 20, 1978; MAY 19, 1978; JUN 20, 1978; JUL 18, 1978; AUG 25, 1978; AUG 28, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
JAN 23, 1976	255.92	S	OCT 20, 1976	256.74	S	JUN 23, 1977	263.42	S	FEB 21, 1978	DRY	
FEB 26	256.10	S	NOV 23	257.52	S	JUL 22	264.01	S	MAR 22	DRY	
MAR 23	256.26	S	DEC 21	258.31	S	AUG 17	264.13 >	S	APR 20	DRY	
APR 20	256.24	S	JAN 21, 1977	259.21	S	24	DRY		MAY 19	DRY	
MAY 25	255.59	S	FEB 24	260.18	S	SEP 13	DRY		JUN 20	DRY	
JUN 22	255.61	S	MAR 22	260.99	S	OCT 25	DRY		JUL 18	DRY	
JUL 23	255.93	S	APR 21	262.12	S	NOV 02	DRY		AUG 25	DRY	
AUG 23	255.85	S	MAY 23	263.03	S	25	DRY		28	DRY	
SEP 22	256.16	S	JUN 08	266.47	S	DEC 22	DRY		29		N

WELL 39N 05W 07DDC1 SITE NUMBER 464349117001301

DRILLED UNUSED ARTESIAN WELL IN COLUMBIA RIVER GROUP. DIAM 8 IN (20 CM). DEPTH 231.0 FT (70.4 M). CASING DEPTH NOT AVAILABLE. LSD 2,560.93 FT (780.572 M) NGVD OF 1929. JUNE 6, 1968, WELL WAS DEEPENED TO A DEPTH OF 240 FT (73.2 M). MEASUREMENTS FROM MAY 29, 1937, THROUGH OCT. 7, 1940, FROM WSP'S 845, 886, AND 910. MEASUREMENTS FROM NOV. 27, 1960, THROUGH JULY 27, 1964, MADE BY US GEOL. SURVEY AND UNIVERSITY OF IDAHO. MEASUREMENTS FROM AUG. 3, 1964, THROUGH MAY 24, 1965, MADE BY UNIVERSITY OF IDAHO. MEASUREMENTS FROM JUNE 1, 1965 THROUGH DEC. 14, 1969, MADE BY IDAHO BUREAU OF MINES & GEOLOGY. MP NO. 1 TOP OF CASING SOUTHEAST SIDE AT LSD (SINCE MAY 2, 1947).

RECORDS AVAILABLE 1937 - 1940, 1947 - 1964, 1965 - 1966, 1967 - 1969, 1970 TO CURRENT YEAR.

HIGHEST WATER LEVEL 50.10 FEET BELOW LAND SURFACE DATUM APR 19, 1938.

LOWEST WATER LEVEL 89.21 FEET BELOW LAND SURFACE DATUM DEC 17, 1958.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL
JAN 20, 1976	57.57	S	SEP 14, 1976	55.72	S	JUN 07, 1977	54.20	S	MAR 23, 1978	53.48
FEB 24	56.05	S	OCT 19	55.41	S	JUL 27	56.34	S	APR 18	53.44
MAR 23	55.80	S	NOV 19	56.29	S	AUG 22	58.18	S	MAY 26	53.91
APR 25	55.52	S	DEC 17	56.07	S	SEP 20	55.84	S	JUN 21	56.12
26	55.33	S	JAN 11, 1977	55.95	S	OCT 17	54.98	S	JUL 19	56.95
MAY 17	54.94	S	FEB 18	56.67	S	NOV 17	54.65	S	AUG 22	57.40
JUN 14	54.74	S	MAR 15	55.45	S	DEC 15	53.74	S	SEP 19	55.58
JUL 14	55.81	S	APR 14	54.89	S	JAN 24, 1978	54.10			
AUG 13	56.28	S	MAY 10	54.38	S	FEB 14	53.63			

WELL 21N 22E 08CBC1 SITE NUMBER 450940113532601

DRILLED DOMESTIC WATER-TABLE WELL IN ALLUVIUMOF QUATERNARY AGE. DIAM 6 IN (15 CM). REPORTED DEPTH 75 FT (22.9 M). CASED TO 34 FT (10.4 M) LSD ABOUT 3.965 FT (1.280 M) NGVD OF 1929. MEASUREMENTS PRIOR TO SEPT. 11. 1973. MADE BY IDAHO DEPT OF WATER ADMIN. MP NO. 1 TOP OF 1 5/8-IN (4.1-CM) HOLE IN WELL SEAL WEST SIDE. 0.20 FT (0.061 M) ABOVE LSD (SINCE MAR. 29. 1971).

RECORDS AVAILABLE 1971 - 1972. 1973 - 1978.

HIGHEST WATER LEVEL 2.78 FEET BELOW LAND SURFACE DATUM AUG 06. 1977.

LOWEST WATER LEVEL 14.29 FEET BELOW LAND SURFACE DATUM JUN 21. 1972.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 09. 1976	5.89 S	NOV 06. 1976	4.28 S	AUG 06. 1977	2.78 S	JUN 09. 1978	5.15 P S
FEB 21	5.00 S	DEC 16	6.72 R S	SEP 15	5.34 S	29	3.25 R S
MAR 26	8.07 S	JAN 29. 1977	4.83 S	OCT 21	5.98 S	AUG 08	7.65 R S
MAY 14	6.77 S	MAR 07	5.95 S	DEC 08	7.28 S	09	N
JUN 19	3.97 S	APR 17	4.77 S	JAN 20. 1978	6.43 S		
JUL 29	4.36 P S	MAY 18	5.40 S	MAR 10	6.68 S		
SEP 16	4.19 S	JUN 25	4.02 S	APR 22	4.60 S		

WELL 21N 22E 15BAC1 SITE NUMBER 450915113504501

DRILLED DOMESTIC WATER-TABLE WELL IN ALLUVIUMOF QUATERNARY AGE. DIAM 6 IN (15 CM). REPORTED DEPTH 37 FT (11.3 M). CASED TO 36 FT (11.0 M). PERFORATED 26-34 FT (7.9-10.4 M). LSD ABOUT 4.045 FT (1.233 M) NGVD OF 1929. MP NO. 1 TOP OF 3/4-IN (1.9-CM) HOLE IN WELL SEAL SOUTH SIDE. 0.50 FT (0.152 M) ABOVE LSD (SINCE SEPT. 13. 1973).

RECORDS AVAILABLE 1973. 1974 TO CURRENT YEAR.

HIGHEST WATER LEVEL 2.68 FEET BELOW LAND SURFACE DATUM SEP 15. 1977.

LOWEST WATER LEVEL 18.60 FEET BELOW LAND SURFACE DATUM JAN 29. 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 09. 1976	17.57 S	NOV 06. 1976	13.15 S	AUG 06. 1977	3.11 S	MAY 27. 1978	4.57 S
FEB 21	16.38 S	DEC 16	17.78 S	SEP 15	2.68 S	JUN 28	3.54 S
MAR 27	17.24 S	JAN 29. 1977	18.60 S	OCT 21	10.37 S	AUG 08	3.94 S
MAY 14	10.08 S	MAR 09	18.14 S	DEC 08	15.71 S	SEP 15	4.78 R S
JUN 19	4.22 S	APR 17	4.42 S	JAN 20. 1978	16.57 S		
JUL 31	4.00 S	MAY 20	3.51 S	MAR 10	16.98 S		
SEP 17	7.08 S	JUN 25	4.15 S	APR 22	11.60 S		

WELL 21N 22E 31DAA1 SITE NUMBER 450711113533401

DRILLED DOMESTIC WATER-TABLE WELL IN ALLUVIUMOF QUATERNARY AGE. DIAM 6 IN (15 CM). REPORTED DEPTH 33 FT (10.1 M). CASED TO 33 FT (10.1 M). OPENBOTTOM. LSD ABOUT 4.030 FT (1.228 M) NGVD OF 1929. MP NO. 1 TOP OF 1/4-IN (0.64-CM) BUSHING IN WELL SEAL WEST SIDE. 0.60 FT (0.183 M) ABOVE LSD (SINCE SEPT. 11. 1973).

RECORDS AVAILABLE 1973. 1974 TO CURRENT YEAR.

HIGHEST WATER LEVEL 4.03 FEET BELOW LAND SURFACE DATUM JUN 09. 1978.

LOWEST WATER LEVEL 14.44 FEET BELOW LAND SURFACE DATUM MAR 01. 1975.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 09. 1976	8.56 S	NOV 06. 1976	6.29 S	JUN 25. 1977	4.54 S	MAR 10. 1978	7.83 S
FEB 21	9.59 S	DEC 16	7.64 R S	AUG 06	5.08 S	APR 22	5.54 S
MAR 26	8.39 S	JAN 29. 1977	9.52 S	SEP 17	5.25 S	JUN 09	4.03 S
MAY 14	4.47	MAR 07	9.23 S	OCT 21	6.18 S	28	4.45 S S
JUL 29	5.09 S	APR 17	6.17 R S	DEC 09	7.28 S	AUG 08	4.68 S
SEP 16	5.74 S	MAY 18	5.19 S	JAN 21. 1978	7.92 S	SEP 15	4.69 S

WELL 19N 24E 08CDD1 SITE NUMBER 445904113382601

DRILLED STOCK WATER-TABLE WELL IN ALLUVIUM OFQUATERNARY AGE. DIAM 8 IN (20 CM). REPORTED DEPTH 59 FT (18.0 M). CASED TO 48 FT (14.6 M). PERFORATED 33-45 FT (10.1-13.7 M). LSD ABOUT 4,780 FT (1,457 M) NGVD OF 1929. MP NO. 1 TOP OF 5/8-IN (1.6-CM) HOLE IN WELL SEAL SOUTHWEST SIDE. 0.80 FT (0.244 M) ABOVE LSD (SINCE DEC. 8. 1973).

RECORDS AVAILABLE 1973. 1974 TO CURRENT YEAR.

HIGHEST WATER LEVEL 11.60 FEET BELOW LAND SURFACE DATUM AUG 06. 1977.

LOWEST WATER LEVEL 20.13 FEET BELOW LAND SURFACE DATUM APR 12. 1974.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
JAN 11. 1976	19.78	S	NOV 06. 1976	18.57	S	AUG 06. 1977	11.60	S	MAY 27. 1978	13.50	S
FEB 21	20.10	S	DEC 16	18.95	S	SEP 15	15.42	S	JUN 28	12.65	S
MAR 27	18.86	S	JAN 29. 1977	19.22	S	OCT 21	17.60	S	AUG 09	13.84	S
MAY 16	18.36	S	MAR 09	19.17	S	DEC 08	19.27	S	SEP 13	17.47	S
JUN 19	14.22	S	APR 17	19.76	S	JAN 20. 1978	19.81	S			
JUL 31	12.58	S	MAY 20	12.36	S	MAR 10	19.78	S			
SEP 17	17.29	S	JUN 25	12.82	S	APR 22	19.73	S			

WELL 18N 24E 20DDA1 SITE NUMBER 445212113374501

DRILLED DOMESTIC WATER-TABLE WELL IN ALLUVIUMOF QUATERNARY AGE. DIAM 6 IN (15 CM). DEPTH 39.7 FT (12.10 M). CASED TO 39.7 FT (12.10 M). LSD ABOUT 5,170 FT (1,576 M) NGVD OF 1929. MP NO. 1 TOP OF 3/8-IN (1.0-CM) HOLE IN WELL SEAL NORTHEAST SIDE. 4.15 FT (1.265 M) BELOW LSD (SINCE MAY 10. 1975). MP NO. 2 TOP OF 3/8-IN (1.0-CM) PIPE NORTHEAST SIDE. 2.18 FT (0.664 M) BELOW LSD (SINCE JAN. 1. 1976).

RECORDS AVAILABLE 1975 TO CURRENT YEAR.

HIGHEST WATER LEVEL 4.35 FEET BELOW LAND SURFACE DATUM JUN 25. 1977.

LOWEST WATER LEVEL 29.07 FEET BELOW LAND SURFACE DATUM APR 22. 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
JAN 11. 1976	25.65	S	NOV 06. 1976	20.14	S	AUG 06. 1977	5.00	S	MAY 27. 1978	5.08	S
FEB 21	26.84	S	DEC 16	24.66	S	SEP 15	4.96	S	JUN 28	6.63	S
MAR 27	25.48	S	JAN 29. 1977	26.48	S	OCT 21	18.95	S	AUG 09	4.78	S
MAY 16	12.09	S	MAR 09	26.89	S	DEC 08	23.85	S	SEP 13	8.52	S
JUN 19	7.79 R	S	APR 17	26.89	S	JAN 20. 1978	26.92	S			
JUL 31	10.11	S	MAY 20	6.94	S	MAR 10	27.60	S			
SEP 17	8.61	S	JUN 25	4.35	S	APR 22	29.07	S			

WELL 14N 22E 35BBD1 SITE NUMBER 443017113493001

DRILLED IRRIGATION WATER-TABLE WELL IN ALLUVIUM OF QUATERNARY AGE. DIAM 16 IN (41 CM). DEPTH 249.4 FT (76.0 M). CASING DEPTH NOT AVAILABLE. LSD ABOUT 5,291 FT (1,613 M) NGVD OF 1929. MP NO. 1 TOP OF CASING NORTH SIDE. 1.00 FT (0.305 M) ABOVE LSD (SINCE MAY 25. 1971).

RECORDS AVAILABLE 1971 TO CURRENT YEAR.

HIGHEST WATER LEVEL 37.00 FEET BELOW LAND SURFACE DATUM SEP 18. 1976.

LOWEST WATER LEVEL 57.59 FEET BELOW LAND SURFACE DATUM JUN 08. 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
JAN 09. 1976	41.43	S	SEP 18. 1976	37.00	S	SEP 13. 1977	49.74	S	JUN 08. 1978	57.59	S
FEB 21	45.85	S	MAR 12. 1977	45.39	S	OCT 21	49.00	S	28	50.80	S
MAR 26	48.71	S	APR 18	47.35	S	DEC 09	51.45	S	AUG 08	49.29	S
MAY 14	50.32	S	MAY 18	49.05	S	JAN 20. 1978	54.17	S	SEP 13	48.55	S
JUN 18	40.36	S	JUN 23	46.70	S	MAR 11	54.10	S			

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WELL 35N 05W 16DAC1 SITE NUMBER 462225116575101

DRILLED UNUSED WATER-TABLE WELL IN COLUMBIA RIVER GROUP, DIAM 8 IN (20 CM), REPORTED DEPTH 383 FT (116.7 M), CASED TO 136 FT (41.4 M). LSD ABOUT 1,500 FT (457 M) NGVD OF 1929. MP NO. 1 TOP OF 1 1/2-IN (3.8-CM) PIPE COUPLING, 0.08 FT (0.024 M) ABOVE LSD (SINCE FEB. 15, 1970).

RECORDS AVAILABLE 1970 TO CURRENT YEAR.

HIGHEST WATER LEVEL 13.05 FEET BELOW LAND SURFACE DATUM SEP 13, 1970.

LOWEST WATER LEVEL 41.37 FEET BELOW LAND SURFACE DATUM DEC 14, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL
JAN 21, 1976	31.43	S	OCT 21, 1976	25.88	S	JUL 27, 1977	40.32	S	APR 20, 1978	39.01
FEB 25	32.82	S	NOV 18	27.26	S	AUG 22	39.92	S	MAY 25	38.09
MAR 24	33.62	S	DEC 17	28.75	S	SEP 21	40.66	S	JUN 20	37.00
APR 25	34.36	S	JAN 13, 1977	30.88	S	OCT 19	40.86	S	JUL 21	34.19
MAY 19	33.69	S	FEB 17	33.41	S	NOV 17	41.32	S	AUG 24	33.89
JUN 15	32.33	S	MAR 17	35.14	S	DEC 14	41.37	S	SEP 22	30.14
JUL 15	26.16	S	APR 13	36.68	S	JAN 25, 1978	41.20			
AUG 13	25.47	S	MAY 12	38.21	S	FEB 15	40.82			
SEP 15	25.76	S	JUN 08	39.23	S	MAR 23	39.84			

WELL 03N 05W 19DCD1 SITE NUMBER 433429116583601

DRILLED DOMESTIC WATER-TABLE WELL IN UNKNOWN AQUIFER. DIAM 4 IN (10 CM). REPORTED DEPTH 325 FT (99.1 M). CASED TO 110 FT (33.5 M). LSD ABOUT2.378 FT (725 M) NGVD OF 1929. MP NO. 1 TOP OF HOLE IN WELL SEAL. 1.20 FT (0.366 M) ABOVE LSD (SINCEJAN. 13. 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 33.23 FEET BELOW LAND SURFACE DATUM SEP 19, 1972.

LOWEST WATER LEVEL 83.66 FEET BELOW LAND SURFACE DATUM SEP 20. 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 17. 1976	68.74 P S	JUN 08. 1976	78.68 R S	JUL 13. 1977	92.02 R S	MAR 22. 1978	84.85 R S
FEB 16	66.96 R S	SEP 20	83.66 S	SEP 16	90.12 R S	MAY 23	84.33 R S
MAR 18	72.76 R S	MAR 15. 1977	76.18 R S	NOV 30	89.79 R S	JUL 20	96.38 R S
MAY 08	87.45 R S	MAY 19	86.57 R S	JAN 18. 1978	79.71 R S	21	N

WELL 03N 04W 30AAB1 SITE NUMBER 433423116511401

DRILLED IRRIGATION WATER-TABLE WELL IN IDAHO GROUP. DIAM 12 IN (30 CM). REPORTED DEPTH 200 FT (61.0 M). CASED TO 135 FT (41.1 M). PERFORATED 63-71 FT (19.2-21.6 M). LSD ABOUT 2.305 FT (703 M) NGVD OF 1929. MP NO. 1 TOP OF HOLE IN PUMPBASE. 1.00 FT (0.305 M) ABOVE LSD (SINCE SEPT. 16. 1977).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 53.04 FEET BELOW LAND SURFACE DATUM JAN 03. 1967.

LOWEST WATER LEVEL 70.90 FEET BELOW LAND SURFACE DATUM JUL 07. 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 18. 1976	56.42 S	MAR 15. 1977	56.57 S	JUL 07. 1977	70.90 S	MAR 22. 1978	56.59 S
SEP 20	56.50 S	JUN 24	68.57 S	AUG 04	69.97 P S		

WELL 02N 04W 07DBB1 SITE NUMBER 433124116513501

DRILLED DOMESTIC WATER-TABLE WELL IN UNKNOWN AQUIFER. DIAM 4 IN (10 CM). REPORTED DEPTH 1.100 FT (335.3 M). CASING DEPTH NOT AVAILABLE. LSD ABOUT 2.356 FT (718 M) NGVD OF 1929. MP NO. 1 HOLE IN CASING COVER. 5.90 FT (1.798 M) BELOW LSD (SINCE JAN. 16. 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 49.20 FEET BELOW LAND SURFACE DATUM APR 28. 1967.

LOWEST WATER LEVEL 83.81 FEET BELOW LAND SURFACE DATUM MAR 21. 1975.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 18. 1976	71.80 R S	MAR 15. 1977	66.90 S	SEP 21. 1978	63.91 S		
SEP 20	63.06 S	MAR 22. 1978	68.55 R S				

WELL 01N 03W 20CCC1 SITE NUMBER 432411116435001

DRILLED IRRIGATION WATER-TABLE WELL IN UNKNOWN AQUIFER. DIAM 12 IN (30 CM). REPORTED DEPTH 155 FT (47.2 M). CASED TO 90 FT (27.4 M). PERFORATED. INTERVAL NOT AVAILABLE. LSD ABOUT 2,405 FT (733 M) ABOVE MSL DATUM OF 1929. MP NO. 2 TOP OF 12-IN (30-CM) CASING NORTHEAST SIDE. 2.26 FT (0.668 M) ABOVE LSD (SINCE SEPT. 20, 1975).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 35.74 FEET BELOW LAND SURFACE DATUM JAN 16, 1967.

LOWEST WATER LEVEL 60.95 FEET BELOW LAND SURFACE DATUM SEP 18, 1974.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 15, 1976	37.16 S	JUN 24, 1977	36.91 S	SEP 23, 1977	62.60 P S		
SEP 06	82.97 P S	JUL 07	44.13 P S	MAR 22, 1978	38.34 S		
MAR 15, 1977	36.90 S	AUG 04	86.04 P S	SEP 21	41.98 S		

WELL 01S 03W 01BBC1 SITE NUMBER 432208116385701

FORMERLY WELL NO. 01S 03W 01BCB1. DRILLED IRRIGATION ARTESIAN WELL IN UNKNOWN AQUIFER. DIAM 3 IN (8 CM). REPORTED DEPTH 1,800 FT (548.6 M). CASING DEPTH NOT AVAILABLE. LSD ABOUT 2,290 FT (698 M) NGVD OF 1929. MP NO. 1 TOP OF 2 1/2-IN (6.4-CM) HORIZONTAL PIPE. 2.50 FT (0.762 M) ABOVE LSD (SINCE MAY 5, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 10.62 FEET ABOVE LAND SURFACE DATUM NOV 25, 1970.

LOWEST WATER LEVEL 6.40 FEET ABOVE LAND SURFACE DATUM JAN 03, 1972.

WATER LEVELS IN FEET ABOVE LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 17, 1976	8.42 E M	MAY 19, 1976	9.53 E M	JUL 13, 1977	8.22 E M	MAR 22, 1978	8.47 E M
FEB 16	8.14 E M	SEP 06	9.57 E M	SEP 23	9.08 E M	MAY 18	7.83 E M
MAR 18	9.83 E M	MAR 15, 1977	7.92 E M	NOV 30	8.52 E M	JUL 19	8.52 E M
APR 14	7.30 E M	MAY 19	7.31 E M	JAN 20, 1978	7.32 E M	SEP 21	7.99 E M

WELL 03S 01E 35DAC1 SITE NUMBER 430704116174901

DRILLED DOMESTIC WATER-TABLE WELL IN IDAHO GROUP. DIAM 6 IN (15 CM). REPORTED DEPTH 300 FT (91.4 M). CASED TO 60 FT (18.3 M). LSD ABOUT 2,340 FT (713 M) NGVD OF 1929. MP NO. 1 TOP OF HOLE IN SEAL SOUTHEAST SIDE. 4.70 FT (1.433 M) BELOW LSD (SINCE FEB. 2, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 2.16 FEET ABOVE LAND SURFACE DATUM DEC 08, 1975.

LOWEST WATER LEVEL -14.63 FEET BELOW LAND SURFACE DATUM APR 26, 1967.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAY 19, 1976	1.47 M	SEP 06, 1976	2.03 E M	MAR 16, 1977	2.41 E M	SEP 22, 1977	6.90 P S

WELL 04S 01E 30BBB1 SITE NUMBER 430312116233701

DRILLED IRRIGATION WATER-TABLE WELL IN IDAHO GROUP. DIAM 10 IN (25 CM). REPORTED DEPTH 320 FT (97.5 M). CASED TO 32 FT (9.8 M). LSD ABOUT 2,810 FT (856 M) NGVD OF 1929. MP NO. 3 BOTTOM OF HOLE IN CASING. 0.13 FT (0.040 M) ABOVE LSD (SINCEMAR. 21. 1973).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 31.21 FEET BELOW LAND SURFACE DATUM MAR 12. 1970.

LOWEST WATER LEVEL 59.79 FEET BELOW LAND SURFACE DATUM MAY 19. 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 20. 1976	32.90 S	SEP 06. 1976	33.78 S	SEP 22. 1977	43.02 S	MAY 18. 1978	36.04 S
MAR 15	33.78 S	MAR 16. 1977	33.21 S	NOV 23	38.86 S	JUL 19	38.13 T
APR 14	55.77 P S	MAY 19	59.79 S	JAN 20. 1978	37.32 S	SEP 21	40.27 S
MAY 19	55.65 P S	JUL 13	57.42 M	MAR 21	36.75 S		

WELL 05S 01E 20DDD1 SITE NUMBER 425807116211501

DRILLED IRRIGATION WATER-TABLE WELL IN BANBURY FORMATION. DIAM 10 IN (25 CM). REPORTED DEPTH 666 FT (203.0 M). CASED TO 74 FT (22.6 M). LSD ABOUT2,802 FT (854 M) NGVD OF 1929. MP NO. 1 HOLE IN EAST SIDE OF CASING. 1.50 FT (0.457 M) ABOVE LSD (SINCE MAY 13. 1971).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 15.70 FEET BELOW LAND SURFACE DATUM MAR 17, 1974.

LOWEST WATER LEVEL 58.20 FEET BELOW LAND SURFACE DATUM SEP 12. 1968.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 20. 1976	28.68 V S	MAR 16. 1977	18.72 V S	NOV 23. 1977	38.67 V S	JUL 19. 1978	32.40 V S
MAR 15	31.26 V S	JUL 08	38.72 S	JAN 20. 1978	27.89 V S	SEP 21	40.12 V S
APR 14	20.87 V S	13	39.77 S	MAR 21	23.01 V S		
MAY 19	25.61 V S	AUG 19	43.72 S	24	22.99 V S		
SEP 06	40.42 V S	SEP 22	46.84 V S	MAY 18	22.86 V S		

WELL 05S 02E 05BCD1 SITE NUMBER 430114116150801

DRILLED UNUSED ARTESIAN WELL IN IDAHO GROUP. DIAM 10 IN (25 CM). REPORTED DEPTH 2.009 FT (612.3 M). CASING DEPTH NOT AVAILABLE. LSD ABOUT 2,530 FT (771 M) NGVD OF 1929. MP NO. 1 TOP OF 10-IN (25-CM) FLANGE COVER AT LSD (SINCE MAY 23. 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 51.60 FEET ABOVE LAND SURFACE DATUM MAY 23. 1967.

LOWEST WATER LEVEL 42.50 FEET ABOVE LAND SURFACE DATUM SEP 12. 1968.

WATER LEVELS IN FEET ABOVE LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 15. 1976	44.20 E M	MAR 16. 1977	45.35 E M	MAR 21. 1978	48.13 E M		
SEP 06	47.05 E M	SEP 22	45.03 E M				

WELL 06S 03E 14BCB1 SITE NUMBER 425414116043301

DRILLED UNUSED ARTESIAN WELL IN IDAHO GROUP. DIAM 4 IN (10 CM). REPORTED DEPTH 1,342 FT (409.0 M). CASED TO 373 FT (113.7 M). LSD ABOUT 2,643 FT(806 M) NGVD OF 1929. RECORDER INSTALLED MAY 26, 1967. RECORDER REMOVED NOV. 16, 1971. RECORDER INSTALLED JULY 7, 1977. MP NO. 4 TOP OF 4-IN (10-CM) CASING SOUTH SIDE, 0.10 FT (0.030 M) BELOW LSD (SINCE JULY 14, 1971).

RECORDS AVAILABLE 1953 - 1966, 1967 - 1971, 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 7.30 FEET ABOVE LAND SURFACE DATUM FEB 18, 1955.

LOWEST WATER LEVEL -64.97 FEET BELOW LAND SURFACE DATUM OCT 07, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 20, 1976	38.86	S	SEP 05, 1977	62.86		DEC 15, 1977	53.36	APR 05, 1978	36.95
MAR 15	34.68	S	10	63.49		20	52.35	10	35.41
APR 14	30.49	S	15	63.93		25	51.29	15	34.90
MAY 19	30.45	S	20	64.31		31	50.06	20	34.27
JUL 19	47.96	S	21	64.42	S	JAN 05, 1978	49.06	25	33.81
SEP 07	56.65	S	25	64.70		10	48.15	30	33.74
NOV 15	50.89	S	30	64.85		15	47.21	MAY 05	33.86
JAN 22, 1977	41.40	S	OCT 05	64.95		20	46.31	10	34.13
MAR 17	35.72	S	07	64.97		25	45.56	15	34.16
MAY 17	37.71	S	10	64.97		31	44.62	JUL 10	47.10
JUL 05	50.09	S	15	64.90		FEB 05	43.86	15	47.80
07	50.51	S	20	64.04		10	43.02	20	48.57
12	51.68	S	25	63.11		15	42.23	25	49.45
19	53.20	S	31	62.13		20	41.59	31	50.67
20	53.52		NOV 05	61.24		25	40.90	AUG 05	51.76
25	55.17		10	60.48		28	40.46	SEP 13	57.61
31	56.64		15	59.63		MAR 05	39.72	15	57.60
AUG 05	57.76		20	58.67		10	39.13	20	57.54
10	58.73		23	58.04		15	38.53	25	57.35
15	59.77		26	57.47	S	20	37.97	30	56.53
20	60.51		30	56.09		21	37.66		
25	61.11		DEC 05	55.56		25	37.18		
31	62.04		10	54.54		31	36.50		

WELL 06S 04E 14ABC1 SITE NUMBER 425425115563801

DRILLED IRRIGATION ARTESIAN WELL IN IDAVADA VOLCANICS. DIAM 15 IN (38 CM). REPORTED DEPTH 1,905 FT (580.6 M). CASED TO 1,600 FT (487.7 M). LSD ABOUT 2,665 FT (812 M) NGVD OF 1929. MP NO. 2 BOTTOM EDGE OF HOLE IN PUMPBASE SOUTH SIDE. 2.15 FT (0.655 M) BELOW LSD (SINCE APR. 16, 1969).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 6.09 FEET BELOW LAND SURFACE DATUM APR 26, 1967.

LOWEST WATER LEVEL 86.35 FEET BELOW LAND SURFACE DATUM SEP 13, 1971.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 15, 1976	29.16 S	MAR 17, 1977	34.29 S	AUG 19, 1977	66.18 S	MAR 16, 1978	33.46 S
SEP 07	98.74 P S	JUL 08	83.72 S	SEP 20	65.35 S	SEP 13	100.32 P S

WELL 06S 05E 24BCA1 SITE NUMBER 425323115484301

DRILLED DOMESTIC ARTESIAN WELL IN BANBURY FORMATION, DIAM 6 TO 4 IN (15 TO 10 CM), REPORTED DEPTH 1,095 FT (333.8 M), 6-IN (15-CM) CASING 0-23 FT (0-7.0 M), 4-IN (10-CM) CASING 23-76 FT (7.0-23.2 M). LSD ABOUT 2,525 FT (770 M) NGVD OF 1929. MP NO. 2 TOP OF CHROME VALVE, 1.00 FT (0.305 M) ABOVE LSD (SINCE OCT. 24, 1958).

RECORDS AVAILABLE 1953 - 1967, 1968 TO CURRENT YEAR.

HIGHEST WATER LEVEL 57.39 FEET ABOVE LAND SURFACE DATUM SEP 28, 1978.

LOWEST WATER LEVEL 1.78 FEET ABOVE LAND SURFACE DATUM MAR 15, 1975.

WATER LEVELS IN FEET ABOVE OR BELOW(-) LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 20, 1976	32.33 E M	JUN 29, 1976	35.52 E M	JUL 12, 1977	52.82 E M	MAR 16, 1978	53.45 E M
MAR 15	32.22 E M	SEP 07	48.96 E M	SEP 21	54.83 E M	MAY 17	-54.41 E M
APR 16	37.70 E M	MAR 17, 1977	17.52 E M	NOV 30	55.86 E M	JUL 18	55.52 E M
MAY 17	46.13 E M	MAY 17	46.15 E M	JAN 19, 1978	50.97 E M	SEP 28	57.39 E M

WELL 06S 05E 33DBB1 SITE NUMBER 425127115515501

DRILLED DOMESTIC WATER-TABLE WELL IN UNKNOWN AQUIFER, DIAM 6 IN (15 CM), REPORTED DEPTH 142 FT (43.3 M), CASING DEPTH NOT AVAILABLE. LSD ABOUT 2,540 FT (774 M) NGVD OF 1929. MP NO. 2 TOP OF 1/4-IN (0.64-CM) HOLE IN CASING COUPLING COVER EAST SIDE, 0.95 FT (0.290 M) ABOVE LSD (SINCE FEB. 8, 1967).

RECORDS AVAILABLE 1953, 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 2.78 FEET BELOW LAND SURFACE DATUM FEB 08, 1967.

LOWEST WATER LEVEL 24.81 FEET BELOW LAND SURFACE DATUM SEP 07, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 15, 1976	11.33 S	MAR 17, 1977	12.28 S	MAR 16, 1978	12.66 S		
SEP 07	24.81 S	SEP 20	23.99 S	SEP 13	20.23 P S		

WELL 07S 05E 19CCC1 SITE NUMBER 424737115544801

DRILLED IRRIGATION WATER-TABLE WELL IN IDAVADA VOLCANICS, DIAM 12 IN (30 CM), REPORTED DEPTH 760 FT (231.6 M), CASED TO 309 FT (94.2 M). LSD ABOUT 2,720 FT (829 M) NGVD OF 1929. MP NO. 4 TOP OF CASING AT LSD (SINCE MAY 17, 1977).

RECORDS AVAILABLE 1953 - 1967, 1968 TO CURRENT YEAR.

HIGHEST WATER LEVEL 10.28 FEET BELOW LAND SURFACE DATUM AUG 12, 1953.

LOWEST WATER LEVEL 41.45 FEET BELOW LAND SURFACE DATUM SEP 07, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 20, 1976	34.23 V S	MAY 17, 1976	36.23 V S	MAR 17, 1977	34.12 V S	SEP 20, 1977	O
MAR 15	32.73 V S	JUN 29	42.74 V S	MAY 17	39.69 V S	NOV 23	O
APR 14	32.53 V S	SEP 07	41.45 S	JUL 07	J	MAR 09, 1978	N

WELL 07S 06E 09BAD2 SITE NUMBER 425004115445302

DRILLED IRRIGATION AND DOMESTIC WELL IN BANBURY FORMATION. DIAM 8 IN (20 CM). REPORTED DEPTH 960 FT (292.6 M). CASED TO 80 FT (24.4 M). LSD ABOUT 2,578 FT (786 M) NGVD OF 1929. MP NO. 1 TOP OF 10-IN (25-CM) ELBOW, 1.50 FT (0.457 M) ABOVE LSD (SINCE JULY 28, 1953).

RECORDS AVAILABLE 1953 - 1967, 1968 TO CURRENT YEAR.

HIGHEST WATER LEVEL 59.30 FEET ABOVE LAND SURFACE DATUM FEB 24, 1954.

LOWEST WATER LEVEL 9.00 FEET ABOVE LAND SURFACE DATUM SEP 08, 1955.

WATER LEVELS IN FEET ABOVE LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 15, 1976	49.22 E M	MAR 15, 1977	37.65 E M	SEP 28, 1978	38.60 E M		
SEP 07	24.46 E M	SEP 21	19.13 E M				

WELL 08S 11E 33CBA1 SITE NUMBER 424119115105601

DRILLED STOCK WATER-TABLE WELL IN IDAHO GROUP. DIAM 6 IN (15 CM). REPORTED DEPTH 290 FT (88.4 M). CASED TO 290 FT (88.4 M). PERFORATED 250-285 FT (76.2-86.9 M). LSD ABOUT 3,168 FT (965.6 M) NGVD OF 1929. MP NO. 1 HOLE IN TOP OF CASING COVER, 1.30 FT (0.396 M) ABOVE LSD (SINCE FEB. 9, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 167.90 FEET BELOW LAND SURFACE DATUM JUL 09, 1977.

LOWEST WATER LEVEL 171.69 FEET BELOW LAND SURFACE DATUM FEB 09, 1967.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
AUG 05, 1976	169.00 S	JUL 09, 1977	167.90 S	DEC 13, 1977	168.49 S		
SEP 21	169.05 S	AUG 18	168.71 S	MAR 24, 1978	168.55 S		
MAR 09, 1977	168.36 S	SEP 12	168.65 S	SEP 11	168.23 S		

WELL 09S 12E 29ACD1 SITE NUMBER 423655115041001

DRILLED IRRIGATION WATER-TABLE WELL IN IDAVADA VOLCANICS. DIAM 18 IN (46 CM). REPORTED DEPTH 530 FT (161.5 M). CASING DEPTH NOT AVAILABLE. LSD ABOUT 3,640 FT (1,100 M) NGVD OF 1929. MP NO. 2 BOTTOM EDGE OF SLOPING PIPE EAST SIDE OF PUMPBASE FLUSH WITH CONCRETE PLATFORM, 2.00 FT (0.610 M) ABOVE LSD (SINCE MAR. 24, 1968).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 194.60 FEET BELOW LAND SURFACE DATUM MAR 24, 1968.

LOWEST WATER LEVEL 244.72 FEET BELOW LAND SURFACE DATUM OCT 19, 1974.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
SEP 21, 1976	229.35 S	MAR 09, 1977	226.25 S	MAR 24, 1978	232.76 S		

WELL 08N 05W 03BAD1 SITE NUMBER 440402116552801

DRILLED IRRIGATION WATER-TABLE WELL IN ALLUVIUM OF QUATERNARY AGE, DIAM 12 IN (30 CM), DEPTH 25.5 FT (7.8 M), CASING DEPTH NOT AVAILABLE. LSD ABOUT 2,156 FT (657 M) NGVD OF 1929. MP NO. 1 TOP OF 12-IN (30-CM) CASING NORTH SIDE, 0.20 FT (0.061 M) ABOVE LSD (SINCE MAR. 8, 1967).

RECORDS AVAILABLE 1967 - 1971, 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 3.33 FEET BELOW LAND SURFACE DATUM JUL 23, 1968.

LOWEST WATER LEVEL 9.42 FEET BELOW LAND SURFACE DATUM APR 25, 1967.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 24, 1976	8.32 S	SEP 10, 1976	4.10 S	AUG 01, 1977	9.16 S	MAR 30, 1978	8.33 S
MAR 06	7.98 S	MAR 12, 1977	9.24 S	SEP 28	6.24 S	MAY 24	10.26 P S
APR 17	8.67 S	MAY 18	6.50 S	NOV 25	6.90 S	JUL 21	5.79 S
MAY 19	9.34 P S	JUN 30	10.96 P S	DEC 07	7.50 S	SEP 20	5.46 S
JUN 21	11.17 P S	JUL 14	9.48 P S	JAN 17, 1978	7.[illegible]3 S		

WELL 08N 04W 17BDA1 SITE NUMBER 440203116503101

DUG IRRIGATION WATER-TABLE WELL IN ALLUVIUM OF QUATERNARY AGE, DIAM 48 IN (122 CM), REPORTED DEPTH 18 FT (5.5 M), CASING DEPTH NOT AVAILABLE. LSD ABOUT 2,195 FT (669 M) NGVD OF 1929. MP NO. 1 TOP OF STEEL CHANNEL IRON WEST SIDE, 1.80 FT (0.549 M) BELOW LSD (SINCE MAR. [illegible] 1967).

RECORDS AVAILABLE 1967 - 1978.

HIGHEST WATER LEVEL 4.50 FEET BELOW LAND SURFACE DATUM JUL 14, 1977.

LOWEST WATER LEVEL 13.11 FEET BELOW LAND SURFACE DATUM JUL 19, 1975.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 24, 1976	10.80 S	JUN 21, 1976	6.81 S	JUL 14, 1977	4.50 S	MAR 30, 1978	10.22 S
MAR 06	10.47 S	SEP 10	9.90 P S	SEP 28	6.66 S	MAY 24	10.62 S
APR 17	10.95 S	MAR 12, 1977	11.24 S	NOV 25	8.80 S	JUL 21	8.39 P S
MAY 19	9.24 S	MAY 18	8.18 S	JAN 17, 1978	9.81 S	22	N

WELL 08N 04W 33ACA1 SITE NUMBER 435933116485901

DRILLED UNUSED WATER-TABLE WELL IN ALLUVIUM OF QUATERNARY AGE. DIAM 6 IN (15 CM). DEPTH 28.5 FT (8.7 M). CASING DEPTH NOT AVAILABLE. LSD ABOUT 2,211 FT (674 M) NGVD OF 1929. RECORDER INSTALLED MAY 17, 1967. RECORDER CHANGED TO DIGITAL MAR. 25, 1975. MP NO. 1 TOP OF 6-IN (15-CM) CASING EAST SIDE, 0.50 FT (0.152 M) ABOVE LSD (SINCE MAY 11, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 3.51 FEET BELOW LAND SURFACE DATUM JUL 18, 1971.

LOWEST WATER LEVEL 11.12 FEET BELOW LAND SURFACE DATUM NOV 30, 1975.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	
JAN 05, 1976	9.42	
10	9.45	
15	9.49	
20	9.52	
25	9.56	
31	9.61	
FEB 05	9.66	
10	9.71	
11	9.72	
15	9.63	
20	8.62	
25	8.02	
27	7.01	
29	7.09	
MAR 05	7.56	
10	7.77	
15	8.08	
20	8.32	
25	8.52	
31	8.70	
APR 05	8.86	
10	8.96	
15	9.05	
20	8.89	
25	7.70	
30	8.36	
MAY 05	8.06	
10	7.21	
15	7.17	
20	6.36	
25	6.74	
31	6.78	
JUN 05	5.29	
10	5.02	
15	6.27	
20	4.66	
25	5.79	
30	6.02	
JUL 05	5.88	
10	5.75	
15	4.76	
16	4.27	
20	4.98	
JUL 25, 1976	5.34	
26	5.76	
31	6.45	
AUG 05	6.81	
SEP 10	5.34	S
16	6.11	S
NOV 13	9.05	S
15	9.11	
20	9.23	
25	9.34	
30	9.47	
DEC 05	9.58	
10	9.67	
15	9.75	
20	9.84	
25	9.91	
31	9.99	
JAN 05, 1977	10.05	
10	10.06	
15	10.08	
20	10.14	
25	10.19	
31	10.25	
FEB 05	10.28	
10	10.32	
15	10.36	
20	10.38	
25	10.39	
28	10.38	
MAR 05	9.92	
10	9.37	
15	9.69	
20	8.97	
31	9.27	
APR 05	9.55	
10	9.2	
20	6.95	
30	6.07	
MAY 05	6.69	
10	6.57	
20	5.94	
31	7.00	
JUN 05	6.43	
JUN 10, 1977	6.27	
20	5.65	
30	5.24	
JUL 05	5.95	
10	5.98	
15	5.61	
20	6.04	
25	5.95	
31	5.96	
AUG 04	4.61	
05	5.36	
10	5.82	
15	5.57	
20	6.00	
25	4.67	
31	6.14	
SEP 05	6.48	
10	6.61	
15	5.52	
20	6.30	
25	7.05	
NOV 30	9.04	S
DEC 05	9.10	
10	9.20	
15	9.09	
20	8.98	
25	9.08	
30	9.18	
JAN 05, 1978	9.28	
07	9.33	
10	9.28	
15	8.44	
20	7.93	
25	7.91	
31	8.11	
FEB 05	8.22	
10	7.87	
15	7.57	
20	7.67	
25	7.80	
28	7.90	
MAR 05	8.08	
10	8.24	
MAR 15, 1978	8.42	
20	8.53	
25	8.66	
31	8.75	
APR 05	8.85	
10	8.95	
15	9.02	
20	9.03	
23	9.08	
25	9.08	
30	8.72	
MAY 05	6.63	
10	7.33	
15	6.67	
20	5.38	
25	5.12	
30	5.69	
JUN 05	5.09	
10	5.86	
15	5.10	
20	5.88	
25	6.12	
30	5.46	
JUL 05	5.14	
10	5.49	
15	5.52	
20	5.51	
25	4.74	
31	5.76	
AUG 05	5.46	
10	4.29	
15	5.46	
20	5.83	
25	5.61	
31	5.93	
SEP 05	5.9	
10	6.80	
15	6.46	
20	6.82	
25	5.93	
30	6.44	

WELL 07N 05W 02BCC1 SITE NUMBER 435832116544301

DRILLED IRRIGATION WATER-TABLE WELL IN ALLUVIUM OF QUATERNARY AGE. DIAM 10 IN (25 CM). REPORTED DEPTH 55 FT (16.8 M). CASING DEPTH NOT AVAILABLE. LSD ABOUT 2,276 FT (694 M) NGVD OF 1929. MP NO. 1 IS 1/4-IN (0.64-CM) HOLE IN EAST SIDE PUMPBASE. 2.20 FT (0.671 M) ABOVE LSD (SINCE MAR. 7, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 25.49 FEET BELOW LAND SURFACE DATUM OCT 01, 1974.

LOWEST WATER LEVEL 36.17 FEET BELOW LAND SURFACE DATUM APR 25, 1967.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 06, 1976	35.25 R S	MAR 12, 1977	35.98 V S	MAR 30, 1978	35.40 S		
SEP 10	28.85 V S	SEP 28	26.53 S	SEP 20	28.26 S		

WELL 07N 03W 07ACD1 SITE NUMBER 435739116441901

FORMERLY SITE ID NO. 435801116435601. WELL NO. 07N 03W 07AAA1. DRILLED DOMESTIC ARTESIAN WELL IN IDAHO GROUP. DIAM 4 IN (10 CM). REPORTED DEPTH 65 FT (19.8 M). CASED TO 63 FT (19.2 M). LSD ABOUT 2,175 FT (663 M) NGVD OF 1929. MP NO. 3 TOP OF 2-IN (5.1-CM) PIPE NORTHEAST CORNER OF PUMPHOUSE. 2.10 FT (0.640 M) ABOVE LSD (SINCE NOV. 29, 1977).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 15.01 FEET ABOVE LAND SURFACE DATUM SEP 29, 1977.

LOWEST WATER LEVEL CANNOT BE DETERMINED BECAUSE OF SITE STATUS.

WATER LEVELS IN FEET ABOVE LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 24, 1976	11.87 E M	JUN 21, 1976	10.85 E M	JUL 14, 1977	10.77 E M	MAR 30, 1978	10.98 E M
MAR 06	9.03 E M	SEP 10	11.83 E M	SEP 29	15.01 E M	MAY 31	8.62 E M
APR 17	11.91 E M	MAR 12, 1977	10.91 E M	NOV 29	11.06 E M	JUL 21	8.42 E M
MAY 20	10.73 E M	MAY 18	11.46 E M	JAN 17, 1978	11.03 E M	22	N

WELL 18N 03E 36BCD1 SITE NUMBER 445120116022301

FORMERLY SITE ID NO. 445126116023601. WELL NO. 18N 03E 36BC 1. DRILLED DOMESTIC WATER-TABLE WELL IN SAND AND GRAVEL OF QUATERNARY AGE. DIAM 5 TO 6 IN (13 TO 15 CM). REPORTED DEPTH 177 FT (53.9 M). 5-IN (13-CM) CASING 0-140 FT (0-42.7 M). 6-IN(15-CM) CASING 140-160 FT (42.7-48.8 M). PERFORATED 140-160 FT (42.7-48.8 M). GRAVEL PACKED. LSD ABOUT 5,120 FT (1,561 M) NGVD OF 1929. MP NO. 3 TOP OF HOLE IN WELL SEAL SOUTHEAST SIDE. 0.60 FT (0.183 M) ABOVE LSD (SINCE MAR. 11, 1975).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 32.25 FEET BELOW LAND SURFACE DATUM SEP 19, 1974.

LOWEST WATER LEVEL 44.95 FEET BELOW LAND SURFACE DATUM AUG 03, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 16, 1976	39.82 S	MAR 08, 1977	41.12 S	SEP 12, 1977	44.41 R S	MAR 23, 1978	44.90 R S
AUG 30	34.96 S	AUG 03	44.95 S	DEC 06	43.04 S	SEP 13	38.94 S

WELL 16N 03E 14AAB1 SITE NUMBER 444351116030001

DRILLED DOMESTIC WATER-TABLE WELL IN SAND OF QUATERNARY AGE. DIAM 5 TO 6 IN (13 TO 15 CM). REPORTED DEPTH 110 FT (33.5 M). 5-IN (13 CM) CASING 0-80 FT (0-24.4 M). 6-IN (15 CM) CASING 80-100 FT (24.4-30.5 M). PERFORATED 80-100 FT (24.4-30.5 M). GRAVEL PACKED. LSD ABOUT 4,865 FT (1,483 M) NGVD OF 1929. MP NO. 1 1/4-IN (3.2-CM) HOLE IN TOP OF WELL COVER. 1.20 FT (0.366 M) ABOVE LSD (SINCE MAR. 14, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 1.24 FEET BELOW LAND SURFACE DATUM MAR 09, 1970.

LOWEST WATER LEVEL 4.05 FEET BELOW LAND SURFACE DATUM AUG 01, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 04, 1976	2.25 S	MAR 08, 1977	3.56 S	OCT 27, 1977	2.96 S	APR 26, 1978	2.02 S
MAR 16	2.15 S	JUN 20	2.96 R S	DEC 06	2.56 S	JUN 07	2.45 S
APR 29	1.83 S	AUG 01	4.05 S	13	2.81 R S	JUL 20	2.25 S
JUN 08	2.50 S	03	3.33 S	JAN 31, 1978	2.34 S	SEP 13	2.13 S
AUG 30	1.97 S	SEP 12	3.45 S	MAR 23	1.93 S		

WELL 13N 04E 16BAD1 SITE NUMBER 442755115592201

DRILLED DOMESTIC WATER-TABLE WELL IN SAND OF QUATERNARY AGE. DIAM 6 IN (15 CM). REPORTED DEPTH 84 FT (25.6 M). CASED TO 67 FT (20.4 M). LSD ABOUT 4,770 FT (1,454 M) NGVD OF 1929. MP NO. 1 TOP OF 6-IN (15-CM) CASING WEST SIDE. 0.60 FT (0.183 M) ABOVE LSD (SINCE MAR. 14, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 20.85 FEET BELOW LAND SURFACE DATUM JUL 08, 1974.

LOWEST WATER LEVEL 29.90 FEET BELOW LAND SURFACE DATUM AUG 01, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 03, 1976	24.14 S	MAR 07, 1977	27.96 S	DEC 12, 1977	25.61 S	JUL 20, 1978	25.47 S
MAR 15	24.72 S	JUN 20	25.62 S	JAN 31, 1978	24.91 S	SEP 15	25.57 S
APR 29	23.38 S	AUG 01	29.90 S	MAR 23	24.75 R S		
JUN 08	24.28 S	SEP 12	26.54 S	APR 28	23.63 S		
AUG 30	27.79 R S	OCT 27	25.78 S	JUN 05	27.59 S		

WELL 14N 02W 06DCD1 SITE NUMBER 443402116340901

DRILLED DOMESTIC ARTESIAN WELL IN COLUMBIA RIVER GROUP, DIAM 6 IN (15 CM), DEPTH 405.5 FT (123.6 M), CASED TO 345 FT (105.2 M). LSD ABOUT 2,765 FT(843 M) NGVD OF 1929. MP NO. 1 TOP OF CASING EAST SIDE, 0.75 FT (0.229 M) ABOVE LSD (SINCE MAY 16, 1974).

RECORDS AVAILABLE 1974 - 1975, 1976 TO CURRENT YEAR.

HIGHEST WATER LEVEL 1.47 FEET ABOVE LAND SURFACE DATUM MAY 16, 1974.

LOWEST WATER LEVEL -6.76 FEET BELOW LAND SURFACE DATUM JUL 18, 1978.

WATER LEVELS IN FEET ABOVE OR BELOW(-) LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
FEB 05, 1976	0.30	S	DEC 08, 1976	0.21		SEP 15, 1977	-1.85	S	JUN 08, 1978	-3.25	S
MAR 16	0.63	S	JAN 12, 1977	0.12		OCT 30	-2.92	S	JUL 18	-6.76	S
MAY 01	0.30	S	MAR 10	0.31	S	DEC 15	-2.18	S	SEP 12	-1.04	S
JUN 11	-6.68	E S	MAY 12	0.31	S	FEB 01, 1978	-3.00	S			
JUL 16	-2.96	S	JUN 23	0.29	S	MAR 21	-3.06	S			
SEP 01	-3.60	S	AUG 04	0.30	S	APR 25	-6.06	S			

WELL 14N 02W 10BCA1 SITE NUMBER 444401116463001

DRILLED UNUSED ARTESIAN WELL IN UNKNOWN AQUIFER, DIAM 6 IN (15 CM), DEPTH 128.9 FT (39.2 M). CASING DEPTH NOT AVAILABLE. LSD ABOUT 2,705 FT (824 M) NGVD OF 1929. MP NO. 1 HOLE IN PUMP COLUMN EAST SIDE, 0.90 FT (0.274 M) ABOVE LSD(SINCE MAY 16, 1974).

RECORDS AVAILABLE 1974 - 1975, 1976 TO CURRENT YEAR.

HIGHEST WATER LEVEL 0.40 FEET BELOW LAND SURFACE DATUM DEC 14, 1977.

LOWEST WATER LEVEL 11.68 FEET BELOW LAND SURFACE DATUM AUG 03, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
MAY 16, 1974	4.87	S	JUL 08, 1975	4.71	S	SEP 01, 1976	4.71	S	OCT 30, 1977	4.78	S
JUN 12	4.61	S	AUG 05	4.49	S	DEC 08	4.45	S	30	2.72	S
JUL 09	4.81	S	SEP 08	4.78	S	JAN 12, 1977	3.42	S	DEC 06	1.49	S
AUG 07	4.80	S	23	4.69	S	MAR 10	1.40	S	14	0.40	S
SEP 10	4.82	S	OCT 08	4.42	S	10	4.43	S	15	3.95	S
OCT 08	4.56	S	NOV 13	4.59	S	MAY 12	1.89	S	FEB 01, 1978	4.39	S
NOV 11	4.68	S	DEC 03	4.42	S	12	4.54	S	MAR 22	4.48	S
DEC 04	4.52	S	FEB 05, 1976	4.42	S	JUN 23	6.76	S	APR 25	4.49	S
JAN 07, 1975	4.40	S	MAR 16	0.74	S	23	4.88	S	JUN 08	4.77	S
FEB 06	4.26	S	17	4.03	S	AUG 03	11.68	S	JUL 18	4.57	S
MAR 05	4.00	S	APR 30	2.04	S	04	5.40	S	SEP 12	4.78	S
APR 09	4.31	S	MAY 01	4.51	S	SEP 14	10.19	S			
MAY 08	4.39	S	JUN 11	4.59	S	15	5.05	S			
JUN 12	4.58	S	JUL 16	5.12	S	15	9.29	S			

WELL 13N 04W 12CDC1 SITE NUMBER 442815116455901

DRILLED IRRIGATION WATER-TABLE WELL IN IDAHO GROUP, DIAM 6 IN (15 CM), DEPTH 169.6 FT (51.7 M). CASING DEPTH NOT AVAILABLE. LSD ABOUT 2,625 FT (800 M) NGVD OF 1929. MP NO. 2 TOP OF HOLE IN WELL SEAL NORTH SIDE, 0.60 FT (0.183 M) ABOVE LSD (SINCE MAR. 23, 1967).

RECORDS AVAILABLE 1961 - 1973, 1974 - 1975, 1976 TO CURRENT YEAR.

HIGHEST WATER LEVEL 15.14 FEET BELOW LAND SURFACE DATUM NOV 27, 1961.

LOWEST WATER LEVEL 94.32 FEET BELOW LAND SURFACE DATUM SEP 19, 1972.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
FEB 06, 1976	58.18	V	DEC 08, 1976	58.58	S	AUG 04, 1977	86.29	S	MAR 21, 1978	55.60	S
MAR 13	56.82	V	JAN 12, 1977	56.38	S	SEP 15	68.41	S	APR 25	54.52	S
MAY 01	55.12	S	MAR 13	53.62	S	OCT 30	62.88	S	JUN 09	53.56	S
JUN 12	51.25	S	MAY 12	80.77	S	DEC 06	60.11	S	JUL 17	52.72	S
JUL 16	60.59	S	JUN 23	86.40	S	15	59.38	S	SEP 12	51.62	S
SEP 01	73.15	S	AUG 03	87.47	S	FEB 01, 1978	57.32	S			

WELL 13N 01W 32ACD1 SITE NUMBER 442509116284501

DRILLED DOMESTIC WATER-TABLE WELL IN UNKNOWN AQUIFER, DIAM 6 IN (15 CM), DEPTH 142.3 FT (43.4 M). CASING DEPTH NOT AVAILABLE. LSD ABOUT 3,270 FT (997 M) NGVD OF 1929. MP NO. 1 TOP OF CASING SOUTH SIDE, 1.50 FT (0.457 M) ABOVE LSD (SINCE MAY 30, 1974).

RECORDS AVAILABLE 1974 - 1975, 1976 TO CURRENT YEAR.

HIGHEST WATER LEVEL 53.74 FEET BELOW LAND SURFACE DATUM MAY 30, 1974.

LOWEST WATER LEVEL 79.90 FEET BELOW LAND SURFACE DATUM SEP 15, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
MAY 30, 1974	53.74	S	APR 09, 1975	60.16	S	MAR 13, 1976	61.39	S	SEP 15, 1977	79.90	S
JUN 11	55.67	S	MAY 08	58.78	S	MAY 01	59.12	S	OCT 30	78.64	S
JUL 08	61.12	S	JUN 12	60.50	S	JUN 12	62.36	S	DEC 15	75.93	S
AUG 06	64.10	S	JUL 08	63.43	S	JUL 16	66.16	S	FEB 01, 1978	73.55	S
SEP 09	67.66	S	AUG 05	67.59	S	SEP 01	70.61	S	MAR 21	70.91	S
OCT 08	69.75	S	SEP 06	70.46	S	DEC 08	66.49	S	APR 25	68.95	S
NOV 11	68.15	S	23	69.87	S	JAN 12, 1977	65.38	S	JUN 09	66.57	S
DEC 04	66.54	S	OCT 08	68.95	S	MAR 11	62.45	S	JUL 17	65.76	S
JAN 07, 1975	64.79	S	NOV 13	67.48	S	MAY 12	63.65	S	SEP 12	73.59	S
FEB 05	63.21	S	DEC 03	66.02	S	JUN 23	67.81	S			
MAR 05	61.68	S	FEB 06, 1976	62.87	V	AUG 04	75.35	S			

WELL 12N 04W 31DBB1 SITE NUMBER 441957116514201

DRILLED DOMESTIC WATER-TABLE WELL IN IDAHO GROUP, DIAM 6 IN (15 CM), REPORTED DEPTH 95 FT (29.0 M). CASING DEPTH NOT AVAILABLE. LSD ABOUT 2,510 FT (765 M) NGVD OF 1929. MP NO. 1 INNER EDGE OF CONCRETE PIT LINING EAST SIDE, 1.20 FT (0.366M) ABOVE LSD (SINCE MAR. 23, 1967).

RECORDS AVAILABLE 1967 - 1972, 1967 - 1973.

HIGHEST WATER LEVEL 24.12 FEET BELOW LAND SURFACE DATUM SEP 09, 1968.

LOWEST WATER LEVEL 50.77 FEET BELOW LAND SURFACE DATUM JUL 09, 1975.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
MAR 17, 1976	38.20	S	SEP 15, 1977	38.04	S	MAR 21, 1978	38.60	S	SEP 11, 1978	26.60	S
OCT 21	36.25	S	OCT 30	39.38	R S	APR 25	38.69	S			
MAR 12, 1977	38.50	S	DEC 15	38.37	R S	JUN 09	32.34	S			
JUN 24	36.76	R S	FEB 02, 1978	38.57	S	JUL 17	33.02	S			

WELL 11N 06W 25CAC1 SITE NUMBER 441527117002501

DRILLED DOMESTIC WATER-TABLE WELL IN ALLUVIUMOF HOLOCENE AGE. DIAM 10 IN (25 CM). REPORTED DEPTH 39 FT (11.9 M). CASING DEPTH NOT AVAILABLE. LSD ABOUT 2.127 FT (648 M) NGVD OF 1929. MP NO. 1 TOP OF WELL PIT ON SOUTH SIDE. 1.20 FT (0.365M) ABOVE LSD (SINCE MAY 13. 1974).

RECORDS AVAILABLE 1974 - 1975. 1976 TO CURRENT YEAR.

HIGHEST WATER LEVEL 6.58 FEET BELOW LAND SURFACE DATUM SEP 12. 1978.

LOWEST WATER LEVEL 13.45 FEET BELOW LAND SURFACE DATUM MAR 12. 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL			DATE	WATER LEVEL			DATE	WATER LEVEL			DATE	WATER LEVEL		
MAY 13. 1974	10.10		S	APR 10. 1975	11.13		S	MAR 13. 1976	11.76		S	SEP 15. 1977	12.21		S
JUN 11	9.44		S	MAY 08	11.68		S	MAY 01	13.08	P	S	OCT 30	12.48		S
JUL 08	8.73		S	JUN 13	10.12		S	JUN 12	9.45		S	DEC 15	12.95		S
AUG 06	9.25		S	JUL 09	9.08	S	S	JUL 16	8.11	R	S	FEB 02. 1978	12.34		S
SEP 09	8.74		S	AUG 06	9.34		S	SEP 02	8.67	R	S	MAR 21	12.00		S
OCT 08	9.43		S	SEP 04	9.14	R	S	DEC 08	11.19		S	APR 24	12.47		S
NOV 11	10.88		S	25	10.64		S	JAN 12. 1977	12.59		S	JUN 14	8.67	P	S
DEC 04	11.55		S	OCT 09	10.21		S	MAR 12	13.45		S	JUL 17	7.60		S
JAN 07. 1975	12.35		S	NOV 14	11.19		S	MAY 12	9.11		S	SEP 12	6.58		S
FEB 07	12.86		S	DEC 05	11.76		S	JUN 24	8.68		S				
MAR 06	12.27		S	FEB 06. 1976	12.78		S	AUG 04	11.44		S				

FOOTNOTE EXPLANATION
SITE STATUS: D DRY. E FLOWED RECENTLY. F FLOWING.
G NEARBY FLOWING. N MEASUREMENT DISCONTINUED.
O OBSTRUCTION. P PUMPING. R RECENTLY PUMPED.
S NEARBY PUMPING. V FOREIGN SUBSTANCE. W WELL DESTROYED.

METHOD OF MEASUREMENT: G PRESSURE GAGE. M MANOMETER.
S STEEL TAPE. T ELECTRIC TAPE. V CALIBRATED ELECTRIC TAPE.

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

STATION NUMBER	LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	LOCAL IDENT-I-FIER	COUNTY	DATE OF SAMPLE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)
				ADA COUNTY					
433343116192901	43 33 43	116 19 29	01	03N 01E 27CDA1	001	78-04-20	1100	--	--
				BENEWAH COUNTY					
470718116354101	47 07 18	116 35 41	01	44N 02W 33BAA1	009	78-05-17	0945	E15.00	76
470949116560901	47 09 49	116 56 09	01	44N 05W 11CCC1	009	78-05-18	1100	--	190
472018116362801	47 20 18	116 36 28	01	46N 02W 16BBD1	009	78-05-16	1115	41.65	80
471917116370801	47 19 17	116 37 08	01	46N 02W 20BDA1	009	78-05-16	0810	66.87	125
471712116312001	47 17 12	116 31 20	01	46N 02W 36DDA1	009	78-05-16	1300	63.61	214
472024116531701	47 20 24	116 53 17	01	46N 04W 07CDB1	009	78-05-16	1500	28.40	100
472045116475301	47 20 45	116 47 53	01	46N 04W 11ACC1	009	78-05-16	1600	51.65	600
				BONNER COUNTY					
480552116073801	48 05 52	116 07 38	01	55N 03E 19CAD1	017	77-11-15	1300	93.86	110
480451116073801	48 04 51	116 07 38	01	55N 03E 29DDD1	017	77-11-15	1445	213.40	239
481233116255301	48 12 33	116 25 53	01	56N 01W 10CCD1	017	77-12-01	1430	21.80	73
481326116155101	48 13 26	116 15 51	01	56N 02E 06CCC1	017	77-11-16	1145	60.55	75
481211116144601	48 12 11	116 14 46	01	56N 02E 18ADD1	017	77-11-16	1045	0.34	70
481255116333501	48 12 55	116 33 35	01	56N 02W 10CAB1	017	77-11-30	1540	49.07	350
481151116335301	48 11 51	116 33 53	01	56N 02W 15CCB1	017	77-12-01	1130	28.17	182
481412116414901	48 14 12	116 41 49	01	56N 03W 04AAA1	017	77-11-29	1530	--	162
481359116415901	48 13 59	116 41 59	01	56N 03W 04ADB1	017	77-11-30	1045	12.96	51
481041116452101	48 10 41	116 45 21	01	56N 03W 30BAC1	017	77-11-30	1245	48.35	80
481651116204501	48 16 51	116 20 45	01	57N 01E 21BAB1	017	77-11-17	1410	27.30	54
481909116312301	48 19 09	116 31 23	01	57N 02W 01BCB1	017	77-11-29	1245	8.45	28
481718116343401	48 17 18	116 34 34	01	57N 02W 16ACC1	017	77-11-28	1530	47.13	175
481740116344101	48 17 40	116 34 41	01	57N 02W 16BAA1	017	77-11-29	1030	--	118
481607116373401	48 16 07	116 37 34	01	57N 02W 19CAD1	017	77-11-18	1245	39.84	106
482428116250901	48 24 28	116 25 09	01	58N 01W 02ADC1	017	77-11-17	1130	34.43	104
482157116240101	48 21 57	116 24 01	01	58N 01W 24ADB1	017	77-11-17	1030	7.49	73
482122116303001	48 21 22	116 30 30	01	58N 01W 30AAB1	017	77-11-18	1000	16.31	151
				BOUNDARY COUNTY					
483040116263001	48 30 40	116 26 30	01	60N 01W 34ADB1	021	78-01-16	1615	40.05	60
483928116214701	48 39 28	116 21 47	01	61N 01E 08ABC1	021	78-01-19	1200	64.03	118
483818116183501	48 38 18	116 18 35	01	61N 01E 15ADD1	021	78-01-19	0955	27.11	42
484415116144901	48 44 15	116 14 49	01	62N 02E 07DAB1	021	78-01-18	1400	34.89	200
484415116143001	48 44 15	116 14 30	01	62N 02E 17BCC1	021	78-01-19	1530	115.90	270
484123116141101	48 41 23	116 14 11	01	62N 02E 29CDC1	021	78-01-18	1615	27.19	60
485049116200501	48 50 49	116 20 05	01	63N 01E 04AAB1	021	78-01-17	1500	100.00	257
484739116244101	48 47 39	116 24 41	01	63N 01W 24CAC1	021	78-01-18	1100	22.81	45
485634116262701	48 56 34	116 26 27	01	65N 01W 34ADD1	021	78-01-17	1645	10.43	172
485738116[illegible]2801	48 57 38	116 10 28	01	65N 02E 26BCD1	021	78-01-17	1045	59.10	102
				CUSTER COUNTY					
441257114562001	44 12 57	114 56 20	01	10N 13E 09AAC1	037	78-09-22	1115	E20.00	110
442751114101701	44 27 51	114 10 17	01	13N 19E 12CCC1	037	78-09-21	1430	96.39	E205
442726113472601	44 27 26	113 47 26	01	13N 22E 13ADD1	037	78-09-14	1500	5.79	40
443105114111501	44 31 05	114 11 15	01	14N 19E 26BCA1	037	78-09-21	1630	15.95	46

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

STATION NUMBER	DATE OF SAMPLE	ELEV. OF LAND SURFACE DATUM (FT. NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN)	FLOW RATE (GPM)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARDNESS (MG/L AS CACO3)
ADA COUNTY--Continued											
433343116192901	78-04-20	--	--	--	647	7.3	--	13.0	--	--	200
BENEWAH COUNTY--Continued											
470718116354101	78-05-17	2830.00	>5	<5.0	133	6.9	7.0	9.5	K1	<1	49
470949116560901	78-05-18	2560.00	--	E15	191	7.7	15.0	13.0	<1	<1	74
472018116362801	78-05-16	2200.00	10	E15	290	6.9	5.0	10.5	<1	<1	140
471917116370801	78-05-16	2210.00	10	>5.0	227	7.0	4.5	9.5	<1	<1	120
471712116312001	78-05-16	2320.00	10	E10	313	7.6	5.0	10.0	<1	<1	140
472024116531701	78-05-16	1610.00	10	E15	262	6.9	7.0	12.0	K1	<1	73
472045116475301	78-05-16	2800.00	10	E10	333	7.4	7.0	10.0	<1	K1	150
BONNER COUNTY--Continued											
480552116073801	77-11-15	2160.00	15	<15	221	8.2	3.5	8.0	<1	<1	110
480451116073801	77-11-15	2280.00	15	<15	171	7.8	7.0	6.5	<1	<1	90
481233116255301	77-12-01	2280.00	>10	<15	367	7.1	3.0	10.5	<1	<1	190
481326116155101	77-11-16	2160.00	15	<15	32	6.1	4.5	12.5	<1	<1	14
481211116144601	77-11-16	2160.00	15	<15	639	7.2	4.0	10.5	<1	<1	360
481255116333501	77-11-30	2200.00	>10	E15	400	6.9	3.0	6.0	<1	<1	160
481151116335301	77-12-01	2180.00	>10	E15	212	7.0	3.0	5.0	K19	<1	98
481412116414901	77-11-29	2086.00	>10	E15	110	6.3	5.0	5.5	<1	<1	37
481359116415901	77-11-30	2120.00	>10	E15	174	6.6	8.0	8.5	<1	<1	77
481041116452101	77-11-30	2149.00	>10	E15	84	6.1	4.5	6.0	<1	<1	28
481651116204501	77-11-17	2120.00	15	<15	48	6.5	2.0	8.0	<1	<1	20
481909116312301	77-11-29	2132.00	>10	E15	420	7.5	9.0	8.0	<1	<1	220
481718116343401	77-11-28	2160.00	>10	E15	66	6.6	2.0	7.5	<1	<1	26
481740116344101	77-11-29	2140.00	>60	E1.0	107	6.7	8.5	8.0	<1	<1	44
481607116373401	77-11-18	2280.00	15	<15	139	7.0	-1.0	10.0	<1	<1	53
482428116250901	77-11-17	2220.00	15	<15	155	6.8	4.5	7.5	<1	<1	69
482157116240101	77-11-17	2080.00	15	<15	56	6.4	1.5	7.0	K4	<1	24
482122116303001	77-11-18	2200.00	15	<15	282	7.3	2.0	7.0	<1	<1	150
BOUNDARY COUNTY--Continued											
483040116263001	78-01-16	2150.00	5	E15	426	7.5	-1.0	3.0	<1	<1	240
483928116214701	78-01-19	1845.00	5	E15	659	7.4	3.0	6.0	<1	<1	360
483818116183501	78-01-19	2290.00	5	E10	1050	7.2	-1.0	9.0	<1	<1	610
494415116144901	78-01-18	2380.00	5	E5.0	471	7.6	2.0	7.0	<1	<1	170
484415116143001	78-01-19	2250.00	5	E15	282	8.1	-1.0	8.5	<1	<1	120
484123116141101	78-01-18	1780.00	5	E10	412	7.2	2.0	8.0	<1	<1	190
485049116200501	78-01-17	2210.00	5	E10	738	7.7	5.5	6.0	<1	<1	300
484739116244101	78-01-18	1785.00	5	E20	43	6.4	3.0	8.0	<1	<1	16
485634116262701	78-01-17	1750.00	10	E10	567	7.7	.0	8.0	<1	<1	250
485738116102801	78-01-17	2740.00	5	E10	79	6.7	2.5	10.0	<1	<1	29
CUSTER COUNTY--Continued											
441257114562001	78-09-22	--	5	--	262	6.9	14.5	9.0	<1	<1	120
442751114101701	78-09-21	--	10	--	1092	7.6	23.0	12.0	<1	<1	460
442726113472601	78-09-14	--	5	E20	486	7.4	23.0	13.0	<1	<1	240
443105114111501	78-09-21	--	--	E50	99	7.8	18.5	12.5	<1	<1	36

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

STATION NUMBER	DATE OF SAMPLE	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)
ADA COUNTY--Continued											
433343116192901	78-04-20	0	55	16	70	43	2.1	1.8	330	0	270
BENEWAH COUNTY--Continued											
470718116354101	78-05-17	0	12	4.5	9.4	29	.6	1.3	70	0	57
470949116560901	78-05-18	0	14	9.6	13	27	.7	2.3	120	0	98
472018116362801	78-05-16	0	36	13	9.2	12	.3	2.4	200	0	160
471917116370801	78-05-16	0	29	12	6.2	10	.2	1.8	160	0	131
471712116312001	78-05-16	0	30	15	11	14	.4	10	200	0	160
472024116531701	78-05-16	5	17	7.3	24	41	1.2	1.9	82	0	67
472045116475301	78-05-16	0	19	26	14	16	.5	.6	220	0	180
BONNER COUNTY--Continued											
480552116073801	77-11-15	2	22	13	2.5	5	.1	.7	130	0	110
480451116073801	77-11-15	0	20	9.8	1.8	4	.1	.6	110	0	90
481233116255301	77-12-01	28	61	9.7	5.6	6	.2	1.1	200	0	160
481326116155101	77-11-16	1	4.5	.7	1.3	16	.2	.4	16	0	13
481211116144601	77-11-16	10	81	39	2.5	1	.1	1.2	430	0	350
481255116333501	77-11-30	0	44	13	17	18	.6	1.9	210	0	172
481151116335301	77-12-01	0	23	9.9	7.8	15	.3	.7	120	0	98
481412116414901	77-11-29	0	8.8	3.7	5.0	21	.4	2.3	57	0	47
481359116415901	77-11-30	0	18	7.7	5.6	13	.3	1.5	100	0	82
481041116452101	77-11-30	5	7.7	2.1	3.4	20	.3	1.4	28	0	23
481651116204501	77-11-17	1	6.6	.8	1.2	11	.1	.5	23	0	19
481909116312301	77-11-29	8	64	15	2.4	2	.1	1.3	260	0	210
481718116343401	77-11-28	0	6.3	2.6	3.4	21	.3	.8	37	0	30
481740116344101	77-11-29	0	12	3.4	4.4	17	.3	1.3	57	0	47
481607116373401	77-11-18	0	15	3.7	7.6	23	.5	1.9	80	0	66
482428116250901	77-11-17	15	23	2.8	2.8	8	.1	1.5	66	0	54
482157116240101	77-11-17	0	7.8	1.0	1.8	13	.2	1.4	31	0	25
482122116303001	77-11-18	9	38	13	5.5	7	.2	1.8	170	0	140
BOUNDARY COUNTY--Continued											
483040116263001	78-01-16	7	70	17	2.5	2	.1	2.5	290	0	240
483928116214701	78-01-19	13	84	36	14	8	.3	4.1	420	0	340
483818116183501	78-01-19	170	180	38	33	11	.6	3.2	530	0	430
484415116144901	78-01-18	21	54	8.3	39	33	1.3	2.6	180	0	150
484415116143001	78-01-19	0	39	5.5	13	19	.5	1.6	170	0	140
484123116141101	78-01-18	29	56	13	11	11	.3	3.0	200	0	160
485049116200501	78-01-17	0	77	27	58	29	1.5	4.0	490	0	400
484739116244101	78-01-18	0	4.9	.8	1.9	20	.2	1.0	19	0	16
485634116262701	78-01-17	0	62	22	34	23	.9	3.3	380	0	310
485738116102801	78-01-17	0	7.4	2.6	4.7	25	.4	.8	44	0	36
CUSTER COUNTY--Continued											
441257114562001	78-09-22	5	34	8.9	6.8	11	.3	.9	140	0	115
442751114101701	78-09-21	170	110	44	54	20	1.1	12	350	0	290
442726113472601	78-09-14	21	69	17	6.4	5	.2	1.6	270	0	220
443105114111501	78-09-21	0	11	2.1	6.6	28	.5	.5	50	0	41

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

STATION NUMBER	DATE OF SAMPLE	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)
					ADA COUNTY--Continued						
433343116192901	78-04-20	26	51	9.9	.9	40	422	.57	3.3	.11	70
					BENEWAH COUNTY--Continued						
470718116354101	78-05-17	14	8.5	1.3	.1	31	103	.14	.06	.00	510
470949116560901	78-05-18	3.8	2.7	1.6	.3	40	143	.19	.00	.07	350
472018116362801	78-05-16	40	3.1	1.3	.2	44	208	.28	.09	.05	60
471917116370801	78-05-16	26	2.8	1.1	.4	49	181	.24	.08	.13	10
471712116312001	78-05-16	8.0	3.9	1.0	.2	27	197	.27	.00	.05	0
472024116531701	78-05-16	17	5.4	40	.3	34	171	.23	.09	.07	60
472045116475301	78-05-16	14	7.0	1.2	.4	22	199	.27	.04	.00	30
					BONNER COUNTY--Continued						
480552116073801	77-11-15	1.3	9.0	.6	.1	11	123	.17	.10	.02	20
480451116073801	77-11-15	2.8	6.8	.3	.1	9.7	104	.14	.07	.02	30
481233116255301	77-12-01	25	29	3.9	.2	21	230	.31	.01	.00	180
481326116155101	77-11-16	20	1.5	.2	.0	11	28	.04	.04	.02	60
481211116144601	77-11-16	43	8.2	1.2	.1	16	361	.49	.03	.02	50
481255116333501	77-11-30	42	29	1.6	.5	22	233	.32	.03	.00	50
481151116335301	77-12-01	19	11	.7	.1	22	135	.18	.09	.02	30
481412116414901	77-11-29	46	3.0	.5	.1	25	77	.10	.06	.02	50
481359116415901	77-11-30	40	5.7	1.5	.2	22	112	.15	.18	.07	60
481041116452101	77-11-30	36	5.8	1.6	.1	25	68	.09	1.6	.01	50
481651116204501	77-11-17	12	5.6	.2	.1	10	36	.05	.02	.02	50
481909116312301	77-11-29	13	2.4	1.3	.1	15	230	.31	.09	.00	20
481718116343401	77-11-28	15	1.7	1.0	.2	39	76	.10	.51	.06	50
481740116344101	77-11-29	18	6.1	.9	.2	19	76	.10	.04	.01	20
481607116373401	77-11-18	13	6.1	.4	.3	27	102	.14	.02	.08	50
482428116250901	77-11-17	17	17	.4	.1	19	99	.13	.01	.03	220
482157116240101	77-11-17	20	.7	.4	.1	16	45	.06	.04	.03	340
482122116303001	77-11-18	14	16	.2	.3	19	178	.24	.01	.02	170
					BOUNDARY COUNTY--Continued						
483040116263001	78-01-16	15	21	.7	.2	15	273	.37	.05	.02	1100
483928116214701	78-01-19	27	47	1.2	.6	20	416	.57	.04	.15	2000
483818116183501	78-01-19	54	52	60	.1	35	773	1.05	25	.02	40
484415116144901	78-01-18	7.2	100	3.8	.4	15	312	.42	.02	.02	160
484415116143001	78-01-19	2.2	18	.8	.3	13	175	.24	.03	.05	40
484123116141101	78-01-18	20	37	10	.1	13	245	.33	.03	.01	2700
485049116200501	78-01-17	16	29	3.5	.5	15	456	.62	.01	.02	730
484739116244101	78-01-18	12	2.7	.7	.1	12	35	.05	.40	.01	20
485634116262701	78-01-17	12	18	1.6	.2	12	342	.47	.01	.09	2000
485738116102801	78-01-17	14	1.0	.5	.1	26	65	.09	.10	.01	70
					CUSTER COUNTY--Continued						
441257114562001	78-09-22	28	11	1.8	.3	18	152	.51	.36	.00	40
442751114101701	78-09-21	14	200	40	.9	15	665	.90	3.8	.01	30
442726113472601	78-09-14	17	14	5.6	.2	15	263	.36	.13	.01	80
443105114111501	78-09-21	1.3	3.5	2.1	.1	25	80	.11	.97	.01	80

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

STATION NUMBER	LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	LOCAL IDENT-I-FIER	COUNTY	DATE OF SAMPLE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)
				CUSTER COUNTY--Continued					
443112114125201	44 31 12	114 12 52	01	14N 19E 28AAA1	037	78-09-20	1630	87.23	138
443030114134501	44 30 30	114 13 45	01	14N 19E 28CCD1	037	78-09-20	1445	E30.00	355
443351113555101	44 33 51	113 55 51	01	14N 21E 12BBA1	037	78-09-14	0915	64.40	199
443145113552401	44 31 45	113 55 24	01	14N 21E 24CAB1	037	78-09-13	1545	138.85	170
443220113524601	44 32 20	113 52 46	01	14N 22E 17DCB1	037	78-09-14	1645	29.82	70
443855114011501	44 38 55	114 01 15	01	15N 21E 07ACB1	037	78-09-15	1330	20.44	52
				GEM COUNTY					
435248116290001	43 52 48	116 29 00	01	06N 01W 05CDD1	045	77-11-03	1315	--	--
435313116312301	43 53 13	116 31 23	01	06N 02W 01BDD1	045	77-11-03	1430	--	--
				KOOTENAI COUNTY					
473050116312301	47 30 50	116 31 23	01	48N 01W 18BBB1	055	78-03-02	1315	25.84	125
473528116263001	47 35 28	116 26 30	01	49N 01W 15DAC1	055	78-03-01	1450	13.37	150
473429116263001	47 34 29	116 26 30	01	49N 01W 22DDC1	055	78-03-02	1045	22.70	135
				LATAH COUNTY					
465553116423601	46 55 53	116 42 36	01	41N 03W 03BCB1	057	78-05-17	1200	15.70	98
465505116433001	46 55 05	116 43 30	01	41N 03W 09BBD1	057	78-05-17	1400	67.82	170
465543116531501	46 55 43	116 53 15	01	41N 04W 06BAC1	057	78-05-18	0700	148.81	513
465455116504301	46 54 55	116 50 43	01	41N 04W 09BAD1	057	78-05-18	0845	E27.00	261
465515116565001	46 55 15	116 56 50	01	41N 05W 03DBC1	057	78-05-18	0930	21.97	41
				LEMHI COUNTY					
444000114012001	44 40 00	114 01 20	01	15N 21E 06BAA1	059	78-09-14	1130	E52.00	85
443715113585001	44 37 15	113 58 50	01	15N 21E 21ABC1	059	78-09-14	1130	--	130
443545113541001	44 35 45	113 54 10	01	15N 22E 30CDC1	059	78-09-15	1015	37.81	105
444130114023101	44 41 30	114 02 31	01	16N 20E 25BDD1	059	78-09-15	1200	31.39	115
					059	78-09-20	1115	--	115
444115114022501	44 41 15	114 02 25	01	16N 20E 25DBB1	059	78-09-20	1200	15.19	44
450915113504501	45 09 15	113 50 45	01	21N 22E 15BAC1	059	78-05-03	1330	7.95	37
450711113533401	45 07 11	113 53 34	01	21N 22E 31DAA1	059	78-05-03	0945	5.88	33
				OWYHEE COUNTY					
430236116192601	43 02 36	116 19 26	00	04S 01E 34BAD1	073	78-06-13	1250	--	2960
432433116415001	43 24 33	116 41 50	01	01N 03W 21ACD1S	073	78-06-14	1630	--	--
432055116373901	43 20 55	116 37 39	00	01S 02W 07CCB1	073	78-06-13	1535	--	1700
431230116322001	43 12 30	116 32 20	01	02S 02W 35ACB1	073	78-06-13	1420	--	1187
430332116145601	43 03 32	116 14 56	01	04S 02E 20CAC1	073	77-10-11	1210	--	--
425750116043201	42 57 50	116 04 32	00	05S 03E 26BCB1	073	78-06-13	1120	--	2970
430020116493401	43 00 20	116 49 34	01	05S 04W 08ADA1	073	78-06-13	1150	--	2000
425012115541601	42 50 12	115 54 16	01	07S 05E 07ABB1	073	78-06-13	1015	--	1625
425004115442301	42 50 04	115 44 23	01	07S 06E 09BAD1	073	78-06-13	0900	--	910
422940116531201	42 29 40	116 53 12	01	11S 05W 02DAB1S	073	78-06-13	1450	--	--
422000115390001	42 20 11	115 38 39	01	12S 07E 33C1S	073	78-06-15	1230	--	--
421815115560501	42 18 13	115 55 58	01	13S 04E 12CDD1	073	78-06-15	1615	--	--
421450115223001	42 14 45	115 22 35	01	14S 09E 02BAA1	073	78-06-27	1120	--	--
420139115214301	42 01 32	115 21 43	01	16S 09E 24BB1S	073	78-06-28	1020	--	--
				SHOSHONE COUNTY					
473227116111601	47 32 27	116 11 16	01	48N 02E 03ABC1	079	78-02-28	1500	13.82	200
473221116135701	47 32 21	116 13 57	01	48N 02E 05BDA1	079	78-02-28	1615	4.00	95
473220116065601	47 32 20	116 06 56	01	48N 03E 06ADA1	079	78-02-28	1315	40.00	152
473057116014401	47 30 57	116 01 44	01	48N 03E 11DDD1	079	78-02-28	1030	11.16	75
472820115461101	47 28 20	115 46 11	01	48N 05E 36BBB1	079	78-03-02	0810	8.98	--
473310116193701	47 33 10	116 19 37	01	49N 01E 34BDC1	079	78-03-01	1150	10.00	83
473631116135901	47 36 31	116 13 59	01	49N 02E 08CAA1	079	78-03-01	0940	56.30	197
				VALLEY COUNTY					
445328116052601	44 53 28	116 05 26	01	18N 03E 16DCD1	085	77-11-03	1300	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

STATION NUMBER	DATE OF SAMPLE	ELEV. OF LAND SURFACE DATUM (FT. NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN)	FLOW RATE (GPM)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	HARDNESS (MG/L AS CACO3)
			GEM	CUSTER COUNTY--Continued							
443112114125201	78-09-20	--	10	E10	410	8.0	17.0	12.0	<1	<1	190
443030114134501	78-09-20	--	10	E55	357	7.4	20.0	11.0	<1	<1	110
443351113555101	78-09-14	--	--	470	452	7.9	12.0	10.5	<1	K2	220
443145113552401	78-09-13	--	5	--	510	7.7	--	13.0	<1	<1	240
443220113524601	78-09-14	--	5	--	491	7.6	24.0	9.0	<1	<1	230
443855114011501	78-09-15	--	5	E33	567	7.5	25.0	12.0	K14	<1	270
				GEM COUNTY--Continued							
435248116290001	77-11-03	--	--	--	274	7.1	--	14.0	--	--	92
435313116312301	77-11-03	--	--	--	617	7.1	--	14.0	--	--	200
				KOOTENAI COUNTY--Continued							
473050116312301	78-03-02	2160.00	10	E10	208	6.7	1.0	5.5	<1	<1	89
473528116263001	78-03-01	2300.00	15	E10	151	6.5	.0	5.5	<1	<1	43
473429116263001	78-03-02	2200.00	10	E20	102	6.5	.0	8.0	<1	<1	42
				LATAH COUNTY--Continued							
465553116423601	78-05-17	2640.00	>5	E10	129	7.1	10.0	8.5	<1	<1	54
465505116433001	78-05-17	2600.00	10	E10	968	7.1	10.0	10.5	<1	<1	230
465543116531501	78-05-18	2620.00	>60	E20	324	8.0	10.0	15.5	<1	<1	65
465455116504301	78-05-18	2520.00	>15	E10	338	8.1	15.0	10.5	<1	<1	72
465515116565001	78-05-18	2520.00	10	E10	396	7.2	15.0	12.0	K14	<1	180
				LEMHI COUNTY--Continued							
444000114012001	78-09-14	--	5	--	319	8.0	15.5	13.0	<1	<1	140
443715113585001	78-09-14	4833.00	--	E45	349	7.8	13.5	10.5	--	--	170
443545113541001	78-09-15	--	5	E300	224	7.1	16.0	9.0	K9	<1	110
444130114023101	78-09-15	4681.00	--	E800	462	7.7	24.0	13.0	K8	<1	190
	78-09-20	4681.00	--	--	--	--	--	--	--	--	--
444115114022501	78-09-20	--	5	E15	541	7.7	14.0	13.0	<1	<1	190
450915113504501	78-05-03	--	--	E15	636	6.9	--	11.0	--	--	240
450711113533401	78-05-03	--	--	E15	344	6.9	14.0	10.0	--	--	160
				OWYHEE COUNTY--Continued							
430236116192601	78-06-13	2570.00	--	351	430	9.2	--	76.5	--	--	3
432433116415001	78-06-14	2256.00	--	4.0	540	9.2	--	56.0	--	--	7
432055116373901	78-06-13	2310.00	--	120	545	9.2	--	45.0	--	--	4
431230116322001	78-06-13	2950.00	--	1700	438	9.6	--	40.0	--	--	10
430332116145601	77-10-11	--	--	--	1174	7.6	--	16.0	--	--	30
425750116043201	78-06-13	2485.00	--	100	529	9.3	--	81.0	--	--	6
430020116493401	78-06-13	6135.00	--	240	206	7.5	--	20.0	--	--	36
425012115541601	78-06-13	2604.00	--	3080	277	8.7	--	39.5	--	--	17
425004115442301	78-06-13	2580.00	--	120	433	9.4	--	51.0	--	--	5
422940116531201	78-06-13	6160.00	--	10	74	7.3	--	7.5	--	--	15
422000115390001	78-06-15	--	--	--	345	9.4	--	71.5	--	--	3
421815115560501	78-06-15	--	--	2.0	140	7.0	--	8.0	--	--	34
421450115223001	78-06-27	--	--	--	358	7.9	--	26.5	--	--	120
420139115214301	78-06-28	5380.00	--	.20	128	8.5	--	54.5	--	--	15
				SHOSHONE COUNTY--Continued							
473227116111601	78-02-28	2060.00	15	E10	171	6.3	1.0	9.0	<1	<1	69
473221116135701	78-02-28	2230.00	>60	E20	46	6.1	1.0	9.0	<1	<1	16
473220116065601	78-02-28	2300.00	>60	E10	274	6.1	2.0	10.5	<1	<1	100
473057116014401	78-02-28	2450.00	30	E10	199	6.2	5.0	8.5	<1	<1	88
472820115461101	78-03-02	3460.00	>60	E5.0	104	6.4	-8.0	5.5	<1	<1	49
473310116193701	78-03-01	2140.00	60	E200	166	6.0	1.5	9.0	<1	<1	68
473631116135901	78-03-01	2330.00	10	E10	106	6.3	-5.0	4.0	<1	<1	42
				VALLEY COUNTY--Continued							
445328116052601	77-11-03	--	--	--	92	7.4	--	9.5	--	--	33

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

STATION NUMBER	DATE OF SAMPLE	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)
CUSTER COUNTY--Continued											
443112114125201	78-09-20	16	44	19	8.7	9	.3	1.2	210	0	170
443030114134501	78-09-20	0	33	7.8	28	35	1.1	.7	160	0	131
443351113555101	78-09-14	46	56	19	5.8	5	.2	1.3	210	0	170
443145113552401	78-09-13	68	60	22	9.8	8	.3	1.8	210	0	170
443220113524601	78-09-14	9	66	16	7.6	7	.2	.9	270	0	221
443855114011501	78-09-15	13	74	20	22	15	.6	1.6	310	0	250
GEM COUNTY--Continued											
435248116290001	77-11-03	0	30	4.2	31	41	1.4	2.5	140	0	110
435313116312301	77-11-03	0	54	16	72	43	2.2	4.0	360	0	300
KOOTENAI COUNTY--Continued											
473050116312301	78-03-02	8	20	9.4	7.7	16	.4	1.9	98	0	80
473528116263001	78-03-01	4	7.9	5.6	4.5	18	.3	1.0	47	0	39
473429116263001	78-03-02	8	11	3.5	4.6	19	.3	.7	41	0	34
LATAH COUNTY--Continued											
465553116423601	78-05-17	0	14	4.6	5.6	18	.3	2.2	79	0	65
465505116433001	78-05-17	50	78	8.7	110	50	3.2	4.1	220	0	180
465543116531501	78-05-18	0	18	4.8	50	61	2.7	2.9	200	0	160
465455116504301	78-05-18	0	20	5.3	49	59	2.5	2.8	200	0	160
465515116565001	78-05-18	45	44	16	13	14	.4	1.7	160	0	130
LEMHI COUNTY--Continued											
444000114012001	78-09-14	0	35	12	12	16	.4	1.1	170	0	140
443715113585001	78-09-14	26	43	14	5.4	7	.2	1.0	170	0	140
443545113541001	78-09-15	0	29	10	1.8	3	.1	1.3	140	0	110
444130114023101	78-09-15	17	51	15	21	19	.7	1.6	210	0	170
	78-09-20	--	--	--	--	--	--	--	--	--	--
444115114022501	78-09-20	0	47	17	44	34	1.4	1.2	270	0	220
450915113504501	78-05-03	0	65	18	40	26	1.1	4.6	290	0	240
450711113533401	78-05-03	0	46	9.8	22	23	.8	1.3	190	0	160
OWYHEE COUNTY--Continued											
430236116192601	78-06-13	0	1.1	.0	110	98	29	.8	120	38	162
432433116415001	78-06-14	0	2.6	.0	130	97	22	2.0	180	38	211
432055116373901	78-06-13	0	1.4	.0	130	98	30	1.2	170	30	189
431230116322001	78-06-13	0	3.9	.0	98	95	14	2.0	120	48	180
430332116145601	77-10-11	0	8.7	2.0	260	91	21	18	650	0	530
425750116043201	78-06-13	0	2.4	.0	120	97	21	1.7	96	48	160
430020116493401	78-06-13	8	13	.9	16	44	1.2	6.2	34	0	28
425012115541601	78-06-13	0	6.7	.0	52	81	5.5	7.2	90	7	85
425004115442301	78-06-13	0	2.1	.0	100	96	19	2.8	100	46	159
422940116531201	78-06-13	0	4.3	1.0	6.0	43	.7	1.9	21	0	17
422000115390001	78-06-15	0	1.3	.0	80	98	19	.8	93	36	140
421815115560501	78-06-15	1	10	2.1	10	36	.8	4.4	40	0	33
421450115223001	78-06-27	5	31	10	30	34	1.2	5.4	140	0	115
420139115214301	78-06-28	0	5.9	.0	30	79	3.4	2.1	61	5	58
SHOSHONE COUNTY--Continued											
473227116111601	78-02-28	36	14	8.3	5.6	15	.3	1.3	41	0	34
473221116135701	78-02-28	7	4.5	1.2	1.1	12	.1	.5	11	0	9
473220116065601	78-02-28	59	27	7.8	9.6	17	.4	1.4	49	0	40
473057116014401	78-02-28	44	25	6.3	2.6	6	.1	1.1	54	0	44
472820115461101	78-03-02	3	15	2.9	1.3	5	.1	2.9	56	0	46
473310116193701	78-03-01	51	18	5.6	3.6	10	.2	1.2	21	0	17
473631116135901	78-03-01	17	6.2	6.4	5.2	21	.4	.9	30	0	25
VALLEY COUNTY--Continued											
445328116052601	77-11-03	0	8.1	3.0	5.5	25	.4	1.9	43	0	35

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

STATION NUMBER	DATE OF SAMPLE	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)
CUSTER COUNTY--Continued											
443112114125201	78-09-20	3.4	17	6.1	.2	17	222	.30	1.2	.00	30
443030114134501	78-09-20	10	25	8.3	.2	15	199	1.88	.47	.00	110
443351113555101	78-09-14	4.2	30	16	.1	13	250	.34	1.1	.01	50
443145113552401	78-09-13	6.7	66	6.2	.2	14	286	.39	.63	.00	70
443220113524601	78-09-14	11	21	6.4	.2	15	270	.35	.96	.02	100
443855114011501	78-09-15	16	47	9.4	.2	21	350	.48	.49	.06	60
GEM COUNTY--Continued											
435248116290001	77-11-03	18	26	10	1.2	27	201	.27	.03	5.5	70
435313116312301	77-11-03	46	41	6.7	.5	29	409	.56	1.8	.04	60
KOOTENAI COUNTY--Continued											
473050116312301	78-03-02	31	24	.5	.4	28	141	.19	.02	.01	780
473528116263001	78-03-01	24	13	.5	.1	23	92	.13	.01	.16	13000
473429116263001	78-03-02	21	18	1.3	.1	20	81	.11	.20	.04	0
LATAH COUNTY--Continued											
465553116423601	78-05-17	10	2.1	1.4	.1	37	106	.14	.01	.03	20
465505116433001	78-05-17	28	140	100	1.4	13	565	.77	.00	.00	1400
465543116531501	78-05-18	3.2	9.7	2.9	.3	19	206	.28	.00	.02	60
465455116504301	78-05-18	2.5	11	3.4	.2	18	208	.28	.01	.01	50
465515116565001	78-05-18	16	5.8	17	.2	48	278	.38	12	.07	0
LEMHI COUNTY--Continued											
444000114012001	78-09-14	2.7	11	8.0	.1	19	185	.25	.56	.01	50
443715113585001	78-09-14	4.3	24	7.8	.1	14	196	.27	.67	.01	60
443545113541001	78-09-15	18	2.7	.7	.0	12	128	.17	.41	.02	60
444130114023101	78-09-15	6.7	19	11	.1	8.7	232	.32	.20	.04	60
	78-09-20	--	--	--	--	--	--	--	--	--	--
444115114022501	78-09-20	8.6	23	20	.3	19	307	.42	.34	.01	410
450915113504501	78-05-03	58	65	15	.4	29	384	.52	.99	.14	20
450711113533401	78-05-03	38	19	17	.4	20	230	.31	.06	.02	10
OWYHEE COUNTY--Continued											
430236116192601	78-06-13	.2	40	16	13	77	355	--	.04	.01	--
432433116415001	78-06-14	.3	41	24	13	--	--	--	.04	.01	--
432055116373901	78-06-13	.2	45	22	12	61	387	--	--	--	--
431230116322001	78-06-13	.1	59	8.7	2.7	89	371	.50	.03	.02	--
430332116145601	77-10-11	26	6.3	73	1.6	110	804	1.09	.01	.03	1600
425750116043201	78-06-13	.2	74	15	15	110	434	--	.08	.01	--
430020116493401	78-06-13	1.7	51	1.0	.5	47	153	.21	--	--	--
425012115541601	78-06-13	.3	18	8.9	9.4	77	232	--	.33	.01	-
425004115442301	78-06-13	.1	28	9.7	23	91	352	.48	.04	.01	--
422940116531201	78-06-13	1.7	3.4	2.1	.2	32	72	.10	2.5	.01	--
422000115390001	78-06-15	.1	23	9.1	16	71	283	--	--	--	--
421815115560501	78-06-15	6.4	7.8	18	.2	35	110	.15	.55	.06	--
421450115223001	78-06-27	2.8	32	19	1.0	71	282	.38	3.1	.01	--
420139115214301	78-06-28	.4	4.7	2.0	3.6	120	203	--	--	--	--
SHOSHONE COUNTY--Continued											
473227116111601	78-02-28	33	44	.7	.1	22	117	.16	.12	.00	30
473221116135701	78-02-28	14	9.7	.3	.0	11	35	.05	.20	.01	0
473220116065601	78-02-28	62	73	.2	.1	18	165	.22	.52	.00	130
473057116014401	78-02-28	55	44	2.0	.0	11	128	.17	1.3	.01	30
472820115461101	78-03-02	36	5.6	.8	.0	8.1	66	.09	.43	.01	90
473310116193701	78-03-01	34	52	1.5	.0	17	112	.15	.46	.03	380
473631116135901	78-03-01	24	23	.5	.1	29	91	.12	1.0	.17	30
VALLEY COUNTY--Continued											
445328116052601	77-11-03	2.7	1.4	.8	.1	50	106	.14	3.1	.10	110

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October 1, 1978

FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

Multiply inch-pound units	By	To obtain SI units
	Length	
inches (in)	2.54×10^{1}	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^{0}	kilometers (km)
	Area	
acres	4.047×10^{3}	square meters (m^2)
	4.047×10^{-1}	square hectometers (hm^2)
	4.047×10^{-3}	square kilometers (km^2)
square miles (mi^2)	2.590×10^{0}	square kilometers (km^2)
	Volume	
gallons (gal)	3.785×10^{0}	liters (L)
	3.785×10^{0}	cubic decimeters (dm^3)
	3.785×10^{-3}	cubic meters (m^3)
million gallons	3.785×10^{3}	cubic meters (m^3)
	3.785×10^{-3}	cubic hectometers (hm^3)
cubic feet (ft^3)	2.832×10^{1}	cubic decimeters (dm^3)
	2.832×10^{-2}	cubic meters (m^3)
cfs-days	2.447×10^{3}	cubic meters (m^3)
	2.447×10^{-3}	cubic hectometers (hm^3)
acre-feet (acre-ft)	1.233×10^{3}	cubic meters (m^3)
	1.233×10^{-3}	cubic hectometers (hm^3)
	1.233×10^{-6}	cubic kilometers (km^3)
	Flow	
cubic feet per second (ft^3/s)	2.832×10^{1}	liters per second (L/s)
	2.832×10^{1}	cubic decimeters per second (dm^3/s)
	2.832×10^{-2}	cubic meters per second (m^3/s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm^3/s)
	6.309×10^{-5}	cubic meters per second (m^3/s)
million gallons per day	4.381×10^{1}	cubic decimeters per second (dm^3/s)
	4.381×10^{-2}	cubic meters per second (m^3/s)
	Mass	
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons